Modern Packaging

SEPTEMBER 1941

We take a Tip from the Circus

The Story of a Problem in Shipping Containers

YEARS AGO, the circus found out:

—how to stow elephants in box cars,
—how to fasten heavy animal cages to flat cars,
—how to pack 1000's of yards of canvas.

And all to the end that this property would arrive at the next town in undamaged condition.

Now, believe it or not, American Can Company has long had an equally complicated shipping problem.

Naturally, we don't ship elephants, tent canvas, or caged animals. But we *do ship* objects which are in themselves just as various in size and shape. Which are just as difficult to stow in freight cars. Which have just as diverse handling problems. *And which, indeed, are probably more easily damaged in transit than a circus's property.*

These objects are metal containers. Round ones. Flat ones. Square ones. Containers with spouts. Containers made of fiber. Containers in almost as many shapes and sizes as there are solids in a geometry text book.

So, taking a tip from the circus, we decided to find out the best way to stow and brace these products in freight cars. *And all to the end that containers would arrive at the customer's warehouse in undamaged condition.*

The problems we ran into were not easy ones to solve.

For, as you probably know, freight cars themselves differ in size. As you probably don't know, they vary in length from 30 feet to 60 feet and in width from 8 feet 5 inches to 9 feet 2 inches. And we soon found out that stowing any one type of container in any one type of freight car was a problem in itself.

All right. But there are thousands of types of containers. And many types of freight cars. *That* makes a whale of a lot of ways of stowing and bracing shipments.

Then, there are what traffic people call "mixed shipments." Different types of containers in the same car. And this, too, we had to work out for all types of freight cars and all probable combinations of containers that would be loaded in them.

To keep ourselves from getting dizzy, we wrote down all the different methods of stowing and bracing containers. When we got through, we had two, good-sized volumes . . . each about as heavy and as thick as a New York or Chicago telephone directory.

But all this was "theory" and, not content with it, we tested it out in sample freight cars with sample loadings at our switching yards.

There, day after day, the railroad butted these sample cars around. Gave them far more jouncing than they'd ever get in actual transit. And only when a car came through this practical "billy goat" test with flying colors, would we O.K. the stowing and bracing method as "sufficient."

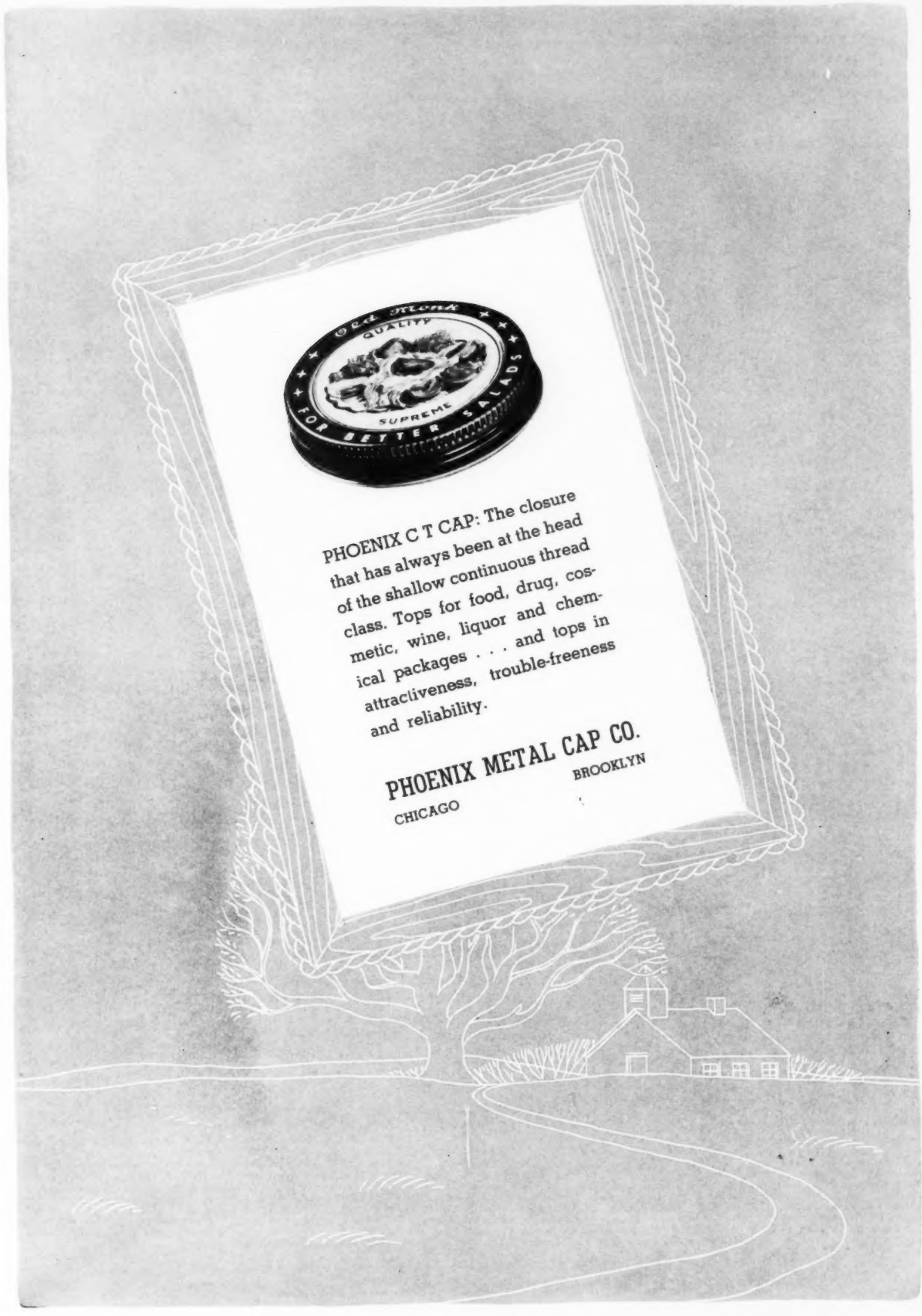
Today, American Can customers have a minimum of headaches from shipments arriving at their warehouses in less than perfect condition. *American Can Company, 230 Park Avenue, New York, N. Y.*

CANCO

Other "Plus's" American Can Offers To Its Customers

- 5 laboratories employing 134 people with college training, academic, or professional degrees in the pure, natural, or engineering sciences.
- 13 points from which customers' machinery is serviced . . . 6 points at which customers' machinery is built.
- 67 plants located strategically in the U. S., Canada, and Hawaii.
- A factory-trained sales staff who are specialists in many different types of industry.
- An executive personnel backed by a financial strength that is in itself a tangible business asset.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.


QUALITY
SUPREME
FOR BETTER SALADS
PHOENIX C T CAP: The closure that has always been at the head of the shallow continuous thread class. Tops for food, drug, cosmetic, wine, liquor and chemical packages . . . and tops in attractiveness, trouble-freeness and reliability.
PHOENIX METAL CAP CO.
CHICAGO
BROOKLYN

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Modern Packaging

SEPTEMBER 1941
VOLUME 15 NUMBER 1

OCTOBER

Does your company have a trade figure? How constantly do you use it in display? In the October Modern Packaging meet Elsie, the cow, and Daughter Beulah, the National Biscuit Boy, Buster Brown, the Carstairs Seal and many others. Find out if these characters really earn their salt.

Also in October—the whys and wherefores of a package testing laboratory, new packs for "buck" watches, merchandising angle of wood chests for silverware.

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ALAN S. COLE, General Manager

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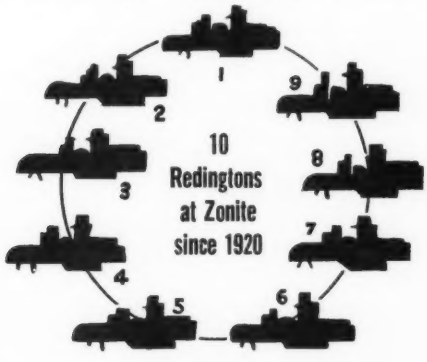
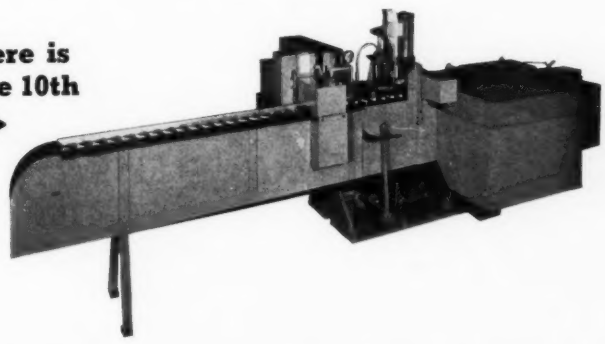
That's *quite a variation in size*—11/16th of an ounce for the smallest Forhan tube—3 and 1/8th ounces for the largest. But the Redington machine at the Zonite Products' plant is easily adjustable for any of Forhan's *4* sizes.

A circular is folded over the top of the tube. The *change-over* from one size carton to another can be made *in a few minutes in some cases . . . much faster* in all cases, thanks to *special* engineering features developed by Redington. One new development is the *adjustable bucket* . . . by merely moving the conveyor chains, the buckets are set for another size carton.

Another Redington is on the job at Zonite Product Co.'s plant handling bottles . . . in fact, *10* Redington machines have been installed there since 1920 . . . concrete evidence of the *results* that big producers of packaged products get from Redingtons. And we could cite many other firms who are equally well pleased. *Shall we* . . . by mail?



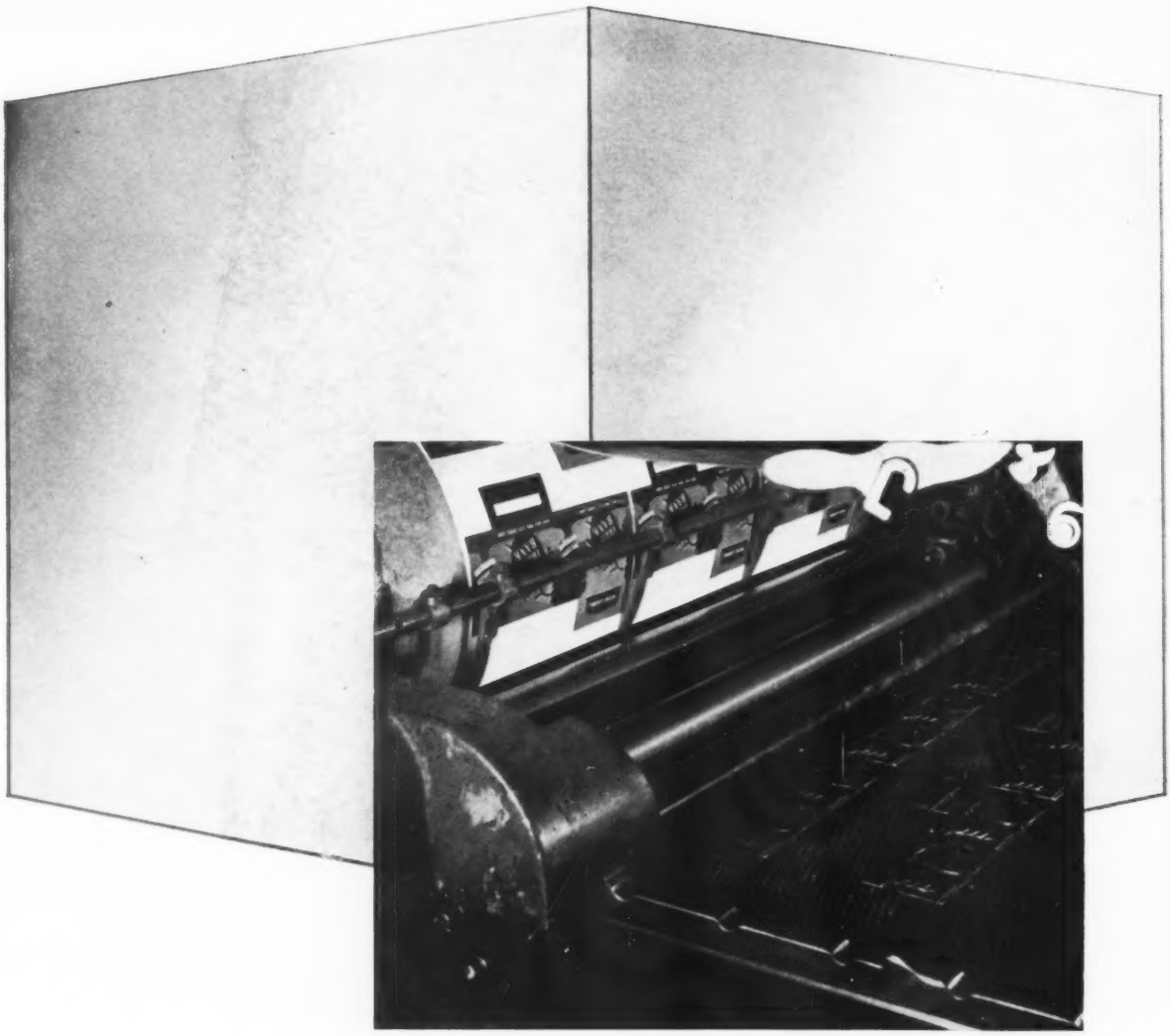
Here is the 10th →



F. B. REDINGTON CO. (Est. 1897) 110–112 So. Sangamon St., Chicago, Ill.

REDINGTON PACKAGING MACHINES

for CARTONING • WRAPPING • SPECIAL PACKAGING

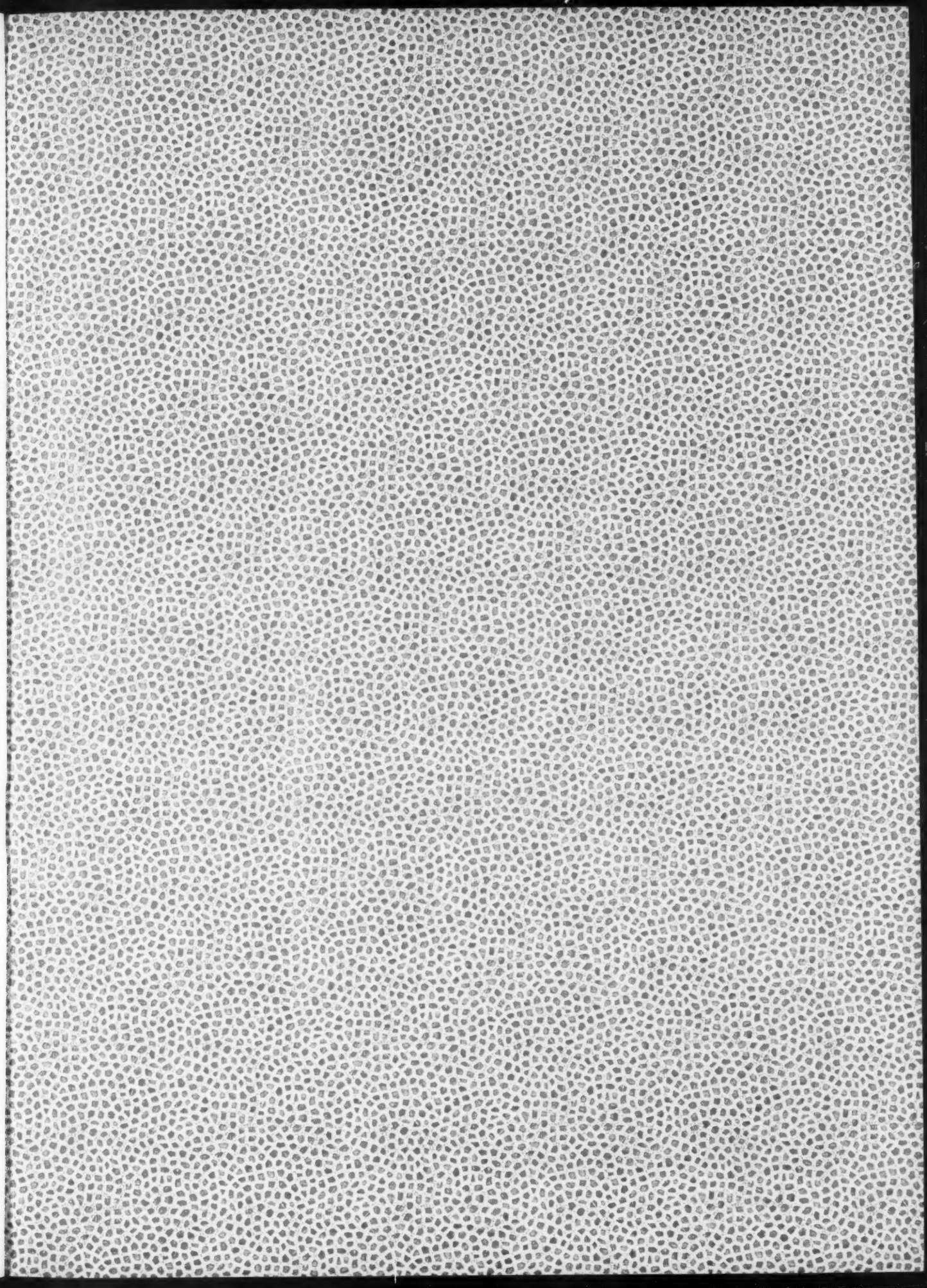


The Mechanics of Box Making

Modern box making utilizes a variety of intricate machinery, to insure precise accuracy in construction, and speed in production. Two-color presses, operating as shown above, are one element in the mechanical processes behind WARNERCRAFT packaging.

WARNERCRAFT
THE FINEST WORD IN PACKAGING

THE WARNER BROTHERS COMPANY
BOX DIVISION — BRIDGEPORT, CONNECTICUT
200 Madison Ave., New York City. AShland 4-1195



Leatherine Lace - 281-M

Hampden's September Suggestion

Here is a box cover, having a leather surface with a lace finish. For small boxes and large, this paper sets a new style with a mark of distinction and is available in a wide range of color tones.

Let us send you a sample swatch or work sheets as you may decide. Each month, look for the new Hampden offering.

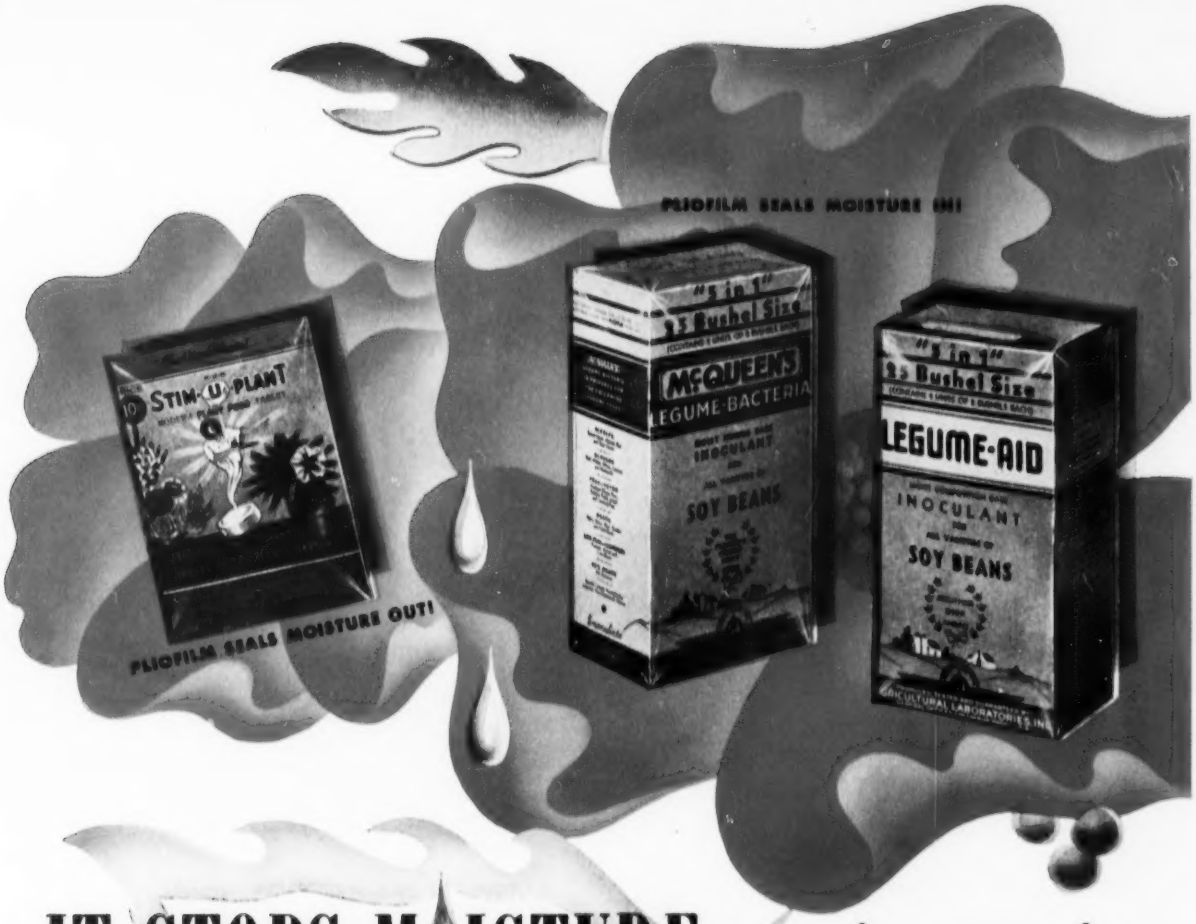
Hampden

GLAZED PAPER AND CARD COMPANY

Holyoke, Massachusetts

SALES REPRESENTATIVES

Chicago, Ill. — 500 So. Peoria St.
Philadelphia, Pa. — 414 Bourse Bldg.
New York, N. Y. — 60 East 42nd St.
San Francisco, Calif. — 420 Market St.
Toronto, Canada — 137 Wellington St. West
Fred'k. Johnson & Co., Limited — 234, Upper Thames Street — London, E. C. 4, England
Seattle, Wash. — 1203 Western Ave.
Dallas, Texas — 3905 Amherst Ave.



IT STOPS MOISTURE...coming or going

In the packaging of the plant foods shown above, *Pliofilm* gives a remarkable demonstration of its ability to do a two-way job on moisture.

All three are packed in *Pliofilm* Inner Bags. Two of them, Legume-Aid and McQueen's, depend upon a 40% to 45% moisture-content for their effectiveness. Here the *Pliofilm* lining insures maintenance of the moisture content at that level.

The third, Stim-U-Plant, is a hygroscopic preparation, which means it must be kept absolutely dry, thoroughly safeguarded against moisture-absorption. Here again, *Pliofilm* fills the bill.

Because of its inherent waterproofness, this unique, glittering, transparent material lends itself to scores of packaging uses—it keeps moist products *moist*, prevents dry articles from absorbing moisture. If your product is one that will benefit from heat-sealed, airtight, moistureproof protection, why not inquire about *Pliofilm?* Address: Pliofilm Sales Department, Goodyear, Akron, Ohio.

Pliofilm—T. M. The Goodyear Tire & Rubber Company

Users of approved Pliofilm *packages are entitled to use this nationally advertised seal known to millions as a guarantee of quality.*

Things are better packaged in

Pliofilm

made only by

GOODYEAR

Sparkling tinplate makes eyes sparkle, too

That eye-catching glitter of fine tinplate right away convinces youngsters that the contents of the gleaming can must be especially good. Grown-ups, too, get this impression of finer quality in the product from a container made of the brighter, cleaner tinplate, as sales records prove over and over again.

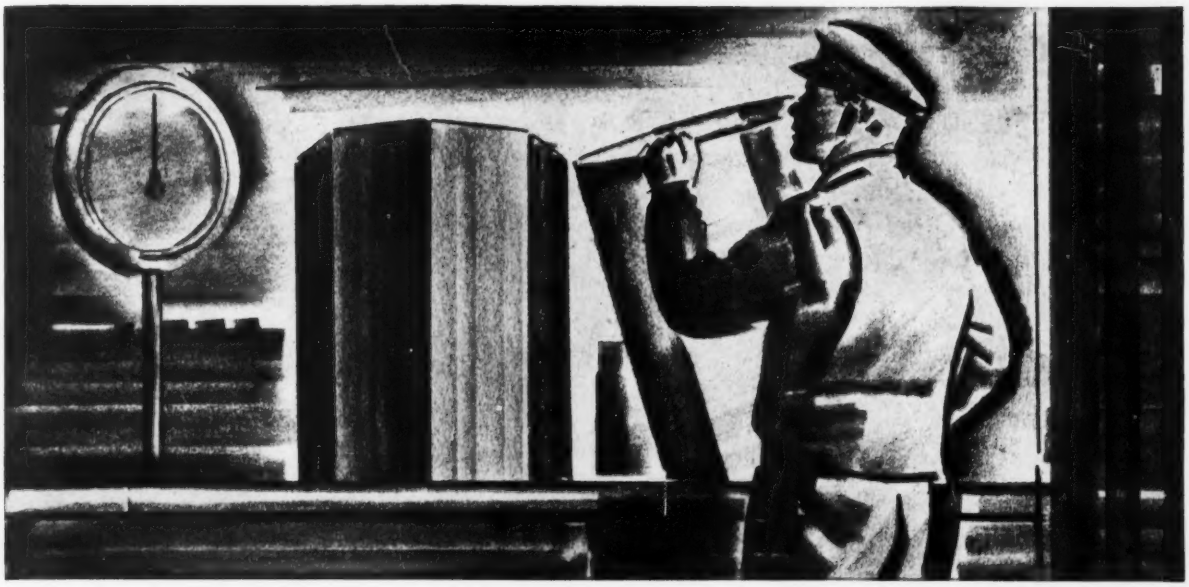
BethColite, Bethlehem's cold-reduced tinplate, reinforces this favorable first impression with a number of other advantages. Thanks to the greater ductility of BethColite, cans are formed easily, have closer seams, provide extra protection for your pack. And because of BethColite's denser coating of tin, those cans will take full color litho designs as clearly as fine paper.

Your container maker can supply you with cans made of BethColite. Specify it. See what a difference BethColite makes in the uniformity of your pack . . . and in its sales.

Bethcolite COLD-REDUCED TIN PLATE MADE BY BETHLEHEM STEEL

I tell you, they'll never ship bulk glassware in anything but barrels

O. K., then we'll make barrels out of corrugated board!



THEY'RE ROLLING OUT THE BARREL . . .

At his desk in one of the nation's greatest department stores sat an executive dictating a letter. "When the packages were opened," he confided to his dictaphone, "only one piece in the whole shipment was broken. If all shipments are carried as safely, and handle and stack as conveniently, I am sure your shipping box will prove successful."

The shipment: bulk glassware.

The shipping box: an octagonal "half-barrel" of corrugated board, designed by the H & D Package Laboratory.

So they're rolling out the barrel . . . the old-fashioned barrel . . . It is being replaced by two octagon shipping boxes which hold as much bulk glassware as a full-size barrel, which go through a packing line faster than a single barrel, which reduce freight costs and decrease breakage. Dealers applaud the new corrugated half-barrels which are more conveniently handled, more easily opened and more quickly unpacked.

Perhaps there's a similarly epoch making idea for packaging *your* product, an idea waiting to be discovered. Remember this — when H & D Package Engineers started searching for a better way to pack bulk glassware they met the old familiar cry, "It can't be done. You'll never ship bulk glassware in anything but barrels." So they made a corrugated barrel.

Whatever your packaging problem, give the H & D Package Laboratory a chance to tackle it.

HINDE & DAUCH

Executive Offices, Sandusky, Ohio

Better See H&D Authority on Packaging

FACTORIES: BALTIMORE • BOSTON • BUFFALO • CHICAGO • CLEVELAND • DETROIT • GLOUCESTER, N. J. • HOBOKEN, N. J.
KANSAS CITY, KAN. • ENOIR, N. C. • MONTREAL • MUNCIE, IND. • RICHMOND, VA. • ST. LOUIS • SANDUSKY, OHIO • TORONTO

WOMEN SAY

Ah-h-h!

When they see these International Shoes in transparent containers of

LUMARITH PROTECTOID

REG. U.S. PAT. OFF.

From package to purchase in one easy step! That's the sales-record of this novel line of rigid containers for baby shoes—as irresistible as the tiny tots they're made for.

And not only for baby's shoes—the Showbox Division of Central States Paper & Bag Company, Inc., St. Louis, has designed and produced for International Shoe Company fourteen separate LUMARITH PROTECTOID containers to gift-package shoes and slippers for all ages.

Crystal-clear, with a permanent sparkle . . . Lumarith Protectoid has every property needed for easy fabrication. And with it you get Celluloid Corporation's technical service—expert advice on design and production problems, including adhesives.

If you buy transparent packages, specify Lumarith Protectoid. If you sell packages, use it!

Packaging Division, CELLULOID CORPORATION, 180 Madison Avenue, New York City. Established 1872. Sole Producer of Celluloid, Lumarith, and Lumarith Protectoid. (Trademarks Reg. U. S. Pat. Off.)

If you are working on a transparent package . . .

Get in touch with CELLULOID *also Headquarters for* PLASTICS

"The Fruit of Experience"

IS NO IDLE PHRASE—ONLY BY THE PATIENT ACCUMULATION OF IDEAS AND METHODS, OF EXPERIMENT AND CLOSE APPLICATION IN THE HIGHLY SPECIALIZED FIELD OF **LABELS — BOX TOPS** AND **DISTINCTIVE PACKAGING** IS IT POSSIBLE TO OBTAIN A RESULT TO MEET THE CRITICAL DEMANDS OF TODAY'S BUYER.

Fruit Basket Slides

(Shown on Reverse Side)

ARE TYPICAL OF THE ORIGINALITY AND SPARKLING NEWNESS FOR WHICH WE STRIVE IN ANTICIPATING THE PACKAGING TREND AND IN CREATING AN ATTRACTIVE PRESENTATION OF **YOUR PRODUCT,** PARTICULARLY SUITED TO THE PRESENT DAY INSISTENCE ON PLAIN BACKGROUND AND COLORFUL SPOTTING TO ATTRACT PURCHASERS. WHEN PLANNING **YOUR PACKAGES,** CONSULT WITH US, WHO HAVE BEEN EQUALLY ADEPT IN OUR LINE OF ENDEAVOR, AS PACKAGING AWARDS FOR THE YEARS 1933-37-38-39-40-41 WILL ATTEST.

RICHARD M. KRAUSE, Inc.

52 EAST 19th STREET

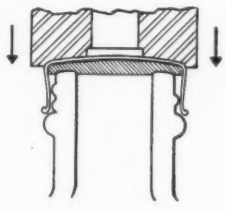
NEW YORK, N. Y.

DESIGNERS — ENGRAVERS — PRINTING CRAFTSMEN

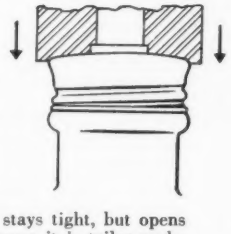
BOX WRAPS AND LABELS OF DISTINCTION

Packaging Insurance is a swell buy, Bill!

HOW THE ROLLED-ON METHOD WORKS



Plain-skirted Alseco Seal is uniformly seated. Under stationary top pressure, container lip is imbedded in liner evenly all around.



Then, to hold that seal securely, threads are Rolled-On, using the container's own threads as the pattern. Possibility of leakage or evaporation is reduced to minimum. Alseco Seal stays tight, but opens and recloses easily because it is tailor-made.

Trade Mark Reg. ALSECO SEALS U. S. Pat. Off.

DEFENSE COMES FIRST

The urgent and rapidly expanded requirements of National Defense have stopped the sale of Aluminum for seals. Temporarily, some types of Alseco Seals are being supplied in metals other than Aluminum.

However, Aluminum production capacity is being greatly increased. When the emergency is past, there will be more Aluminum available for seals than ever before. And you can be sure that the Aluminum Seal Company's research continuing now as always, will keep Alseco Seals and sealing machines "out in front."

"The day we took on 'Packaging Insurance,' we ditched our troubles with leakers, breathers, and jammed caps. And, Bill, that's worth plenty in this man's business!"

There just *can't be* any such thing as a misfit with the Alseco Rolled-On method of sealing. That's Packaging Insurance!

Each seal is individually tailored to fit its own particular container. Its threads are Rolled-On *after* the liner has been pressure-seated on the bottle lip. The glass threads act as the pattern. (See diagrams.)

TAILOR-MADE

ALSECO SEALS

ALUMINUM SEAL CO., 7345 THIRD AVE., NEW KENSINGTON, PA.

At your service: 27 years of experience building quality seals and sealing machines.

ANOTHER

Rhinelander

Now it's

Pliolux

HEAT SEALING
MOISTUREPROOF

PRODUCT OF
RHINELANDER
PAPER CO.
RHINELANDER, WISCONSIN

GIVES YOUR PRODUCT A FRESH START AND KEEPS IT FRESH!

Product of RHINELANDER PAPER COMPANY

Triumph IN FOOD BAG PAPER!

Again Rhinelander Paper Company brings to the food industry a revolutionary new protective material for bag, wrapper and lining purposes. With PLIOLUX, your preferred bag maker can provide containers that guard against loss of flavor, freshness and appetizing goodness due to moisture-vapor loss or gain. After four years of intensive development and collaboration with the Goodyear Tire & Rubber Company, this much-needed and improved heat-sealing protective paper becomes a reality. There is only one genuine PLIOLUX—product of Rhinelander Paper Company. Available to food manufacturers through their bag makers anywhere.

FACTORY FRESH * FLAVOR SEALED

A Pliolux package is equal in protection to metal for many types of "moisture-hungry" products. It keeps products factory-fresh with flavor sealed in because it offers maximum resistance to moisture-absorption or moisture-evaporation. Guards against undesirable dryness or sogginess.

99% LESS MOISTURE GAIN OR LOSS

Extensive scientific tests prove that there is about 99% less moisture evaporation or absorption with heat-sealing Pliolux as compared with ordinary glassine papers. This reduces shrinkage because packages are hermetically sealed against loss of inherent moisture. Also, all the natural freshness of products is retained in air-tight, flavor-sealed packages.

AIR-TIGHT—HEAT-SEALED

The heat-sealing quality of Pliolux together with its own non-porosity keeps food products from absorbing or giving off moisture-freshness. Don't think of Pliolux as just another piece of paper—it is much more than that—its genuine protective qualities safeguard both your product and your reputation.

PRINTS IN SHARP, CLEAN COLORS

Pliolux papers are easily converted into many types of bag containers printed in crisp, clean colors. A practical printing surface plus proper affinity for ink provide the opportunity for containers tops in "eye-appeal." This high-gloss, sparkling waterproof material affords opportunity for the strongest type of selling display.

PROVIDES HIGH GLOSS * EXTRA STRENGTH

Pliolux offers these additional advantages to its important protective qualities. The surface of high gloss coupled with extra strength for handling and carrying are two features of importance to food packers. Satisfactory performance over automatic machines insures economical production with minimum spoilage.

AVAILABLE THROUGH AMERICA'S LEADING BAG MANUFACTURERS

It is

GREASEPROOF

plus

MOISTUREPROOF

and it's

HEAT SEALING

also it's

TRANSPARENT

RHINELANDER, WISCONSIN, U. S. A.

Gaylord Boxes

The Seal of Shipping Safety!

Your product, shipped in a Gaylord Box, is protected by the famous Gaylord "Extra Margin of Safety"—the *reserve strength* built into every Gaylord Box that assures your product a better chance of arriving safe and salable.

In American industry, the name GAYLORD on corrugated or solid fibre shipping containers is a recognized seal of shipping safety.

Equally well known for extra quality are Gaylord cartons, bags and wrapping paper.

GAYLORD CONTAINER CORPORATION

General Offices: SAINT LOUIS

New York · Chicago · San Francisco · Atlanta · New Orleans · Jersey City · Seattle · Indianapolis · Houston · Los Angeles · Oakland
Minneapolis · Dallas · Jacksonville · Columbus · Fort Worth · Detroit · Tampa · Cincinnati · Des Moines · Oklahoma City · Portland
Greenville · San Antonio · Memphis · Kansas City · Milwaukee · Bogalusa · Weslaco · Greensboro

If You're Interested in Product Protection...

You'll be interested in UNITAINERS!

Read how closely these one-shot, non-refillable containers check with the essentials of protective packaging as outlined by Modern Packaging's Institute of Packaging Research!

1. PROTECTION AGAINST "NATURAL" HAZARDS

Protection against moisture .. UNITAINERS are moisture-proof.

Protection against dryness ... Since UNITAINERS are hermetically-sealed, their contents don't dry out.

Protection against heat, cold ... UNITAINERS do not actually protect against temperature extremes, but they are not affected by them. There's no breakage due to freezing, no loss of volatiles due to heat. UNITAINERS' metal surface naturally reflects heat.

Protection against light .. UNITAINERS are opaque so they do not admit light.

Protection against insects .. Insects cannot damage UNITAINERS.

Protection against rodents ... Larger rodents *could* damage UNITAINERS but they are not attracted by them.

2. PROTECTION AGAINST "HUMAN" HAZARDS

Protection against counterfeiting ...UNITAINERS are difficult to counterfeit, could not be counterfeited without a substantial capital outlay.

Protection against tampering ... UNITAINERS are tamper-proof because non-refillable.

Protection against pilferage ... UNITAINERS offer no protection against pilferage of *entire* contents. What consumer container can?

SUN TUBE CORPORATION, HILLSIDE, N. J.

CHICAGO, ILL.	CINCINNATI, OHIO	ST. LOUIS, MO.	ST. PAUL, MINN.	LOS ANGELES, CALIF.
James L. Coffield, Jr.	G. M. Lawrence	M. P. Yates	Alexander Seymour	R. G. F. Byington
333 No. Michigan Ave.	125 West Central Parkway	315 Chestnut St. (Room 125)	903 Pioneer Bldg.	1260 North Western Ave.

Our Young

g Hopeful turned out to be a riot!

CARTON BUYERS POSITIVELY OVERWHELMED US WITH BOOKINGS FOR *COATED* LITHWITE

YOU will perhaps remember just eight months ago we announced *Coated* Lithwite—the revolutionary new boxboard, made by a revolutionary new high-speed, straight-through process.

When we introduced this board, we had an idea it would get a pretty good reception—for *Coated* Lithwite had a quality look and feel, a printing surface that was highly receptive to inks, a coating that took a tight, sure seal. And in addition to all these advantages, *the price was mighty attractive!*

Well, you know what happened. Carton buyers went for *Coated* Lithwite in a bigger way than we ever dreamed of. Orders and *repeat orders* poured in and piled up to a point where we just can't begin to supply the demand.

So, for the present, we can't give the usual service and deliveries on *Coated* Lithwite—but you may be sure that we are doing everything possible to remedy the situation.

GARDNER-RICHARDSON — FROM PULP TO FINISHED PRODUCT — ENGINEERED PRECISION

The GARDNER-RICHARDSON Co.

MANUFACTURERS OF FOLDING CARTONS AND BOXBOARD
MIDDLETOWN, OHIO

Designed for selling... built for service

If you are considering changes in your packaging set-up, we suggest you avail yourself of this complete packaging service offered by Anchor Hocking...

1. A COMPREHENSIVE LINE OF DISTINCTIVE GLASS CONTAINERS... whether your product is best suited to amber or crystal glass, you'll find just the right container—attractive, practical, convenient—in this extensive range.

2. THE WIDEST RANGE OF CLOSURES ON THE MARKET, allowing you free, unrestricted choice. You secure also the added advantages of many exclusive Anchor design and construction features plus the knowledge that Anchor dependability will protect you from profit-paring complaints and returns.

3. AN EXPERIENCED ADVISORY STAFF... including Package and Label Designers, Chemical and Biological Technicians, Production Engineers ...all ready to assist you in planning and putting into production a new package that will enable you to jump ahead of competition, measurably increase your sales and profits.

WILL YOU ACCEPT THIS INVITATION? We'd like to send you sample glass containers and suitable closures to meet your special requirements and have our consulting staff work with you in creating the "perfect" package for your product. Will you tell us how we may help you?

ANCHOR HOCKING GLASS CAPS

ANCHOR HOCKING GLASS CORPORATION
LANCASTER, OHIO

Which is the better package?

MILES above the earth a stratosphere explorer ran into a strange packaging problem. He was making his first balloon flight, safely encased in a black gondola. Outside, in the cold silence, the temperature was 75 degrees below zero.

But inside it was hot—100 degrees above!

What caused the terrific heat? The scientist had an idea. He made his second flight in a *white* gondola. But this time he suffered in below-freezing temperature. Why did he perspire in one gondola and shiver in the other? A physics book will tell you that a black surface absorbs the most heat, a white surface the least.

Which was the better package? Neither Because neither was the *right* package.

Here's one case, it seems, where businessmen have the advantage over explorers. For when a manufacturer wants to find the right package, he has the help of modern packaging research.

Continental offers three packaging services—research, development, and design.

Our packaging experts have had many years of experience in producing and improving packages, creating convenient, colorful, eye-appealing containers. Moreover, they are experts in developing practical packages that are more economical, easier to fill, pack, ship, sell, and use.

What kind of packaging problems come up in *your* business? Do they call for trained research? Whatever they are, call for a Continental representative. He'll be glad to place our services at your disposal.

CONTINENTAL CAN COMPANY

New York Chicago San Francisco Montreal Toronto Havana

Moulded

Individualized

FOR DISTINCTIVE BEAUTY

For A NEW VERSION OF YOUR *OLD* PACKAGE
A RAPID ACCEPTANCE OF YOUR *NEW* PRODUCT
Consult Kimble

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY · · · VINELAND, N. J.

Do You Remember Way Back When the well-conducted business office and the well-whiskered business man looked like this? Around the turn of the century it was. Even then W. C. Ritchie and Company had taken its place among the country's largest and best known packaging manufacturers.

What's New About Emergencies?

You've weathered emergencies before. And so have we. All told, the United States has been involved in 7 depressions and 2 wars since W. C. Ritchie and Company was founded in 1866.

From our experience we've acquired this firm conviction:

There never will be an emergency too tough for the American people and American industry to conquer!

Ritchie has never faced an emergency better prepared or with more confidence than we face the period ahead. Plant facilities, production machinery and trained personnel — all are at a 75 year peak!

In full production today to meet the needs of both private business and national defense, Ritchie welcomes the opportunity to discuss *your* present and future packaging requirements with you.

Write for Free Booklet. If you are interested in packaging, you'll be interested in Ritchie's 75th Anniversary Booklet. Sixteen pages with color illustrations, it's sure to give you many good packaging ideas. Write today.

75TH Anniversary Year

W. C. Ritchie AND COMPANY

8849 BALTIMORE AVENUE • CHICAGO

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

NEW YORK DETROIT LOS ANGELES ST. LOUIS MINNEAPOLIS DENVER MIAMI

SOLUTIONS TO CLOSURE PROBLEMS

EMBOSSED-TOP CORKS . . . one of many types of cork closures made by Mundet. Our broad experience with cork sealing is yours to profit from.

YOU seal with cork because of cork's reputation for safe sealing. It is natural then, that as you rely on cork to safeguard the quality and perfection of your products you should rely on an organization that has long specialized in the making of cork closures of all types for the most practical solutions to your sealing problems. Nature has given cork its unrivaled qualities, but, for best service, cork must be adapted to the specific needs of your product. That's how you profit from Mundet's 75 years of cork experience. Mundet Cork closures include many specialties designed to meet individual requirements—as well as the more general closure types. You get unbiased recommendations and the benefit of specialized experience when you use Mundet Closure Service. Why not write us today? Mundet Cork Corporation, Closure Division, 65 South Eleventh Street, Brooklyn, N. Y.

These Mundet offices and representatives are conveniently located to serve you.

ATLANTA
339-41 Elizabeth St., N.E.

CHICAGO
2959 N. Paulina St.

CINCINNATI
427 W. 4th St.

CLEVELAND
Britten Terminal, Inc.

DALLAS
505 Southland Annex

DENVER
The Stone-Hall Co.

DETROIT
335 W. Jefferson Ave.

HOUSTON
Commerce & Palmer Sts.

JACKSONVILLE, FLA.
Laney & Delcher Warehouse

KANSAS CITY, MO.
1428 St. Louis Ave.

LOS ANGELES
1850 N. Main St.

LOUISVILLE
Kentucky Bottlers Supply Co.

MEMPHIS
Memphis Bonded Warehouse

NEW ORLEANS
432 No. Peters St.

PHILADELPHIA
2226 Arch St.

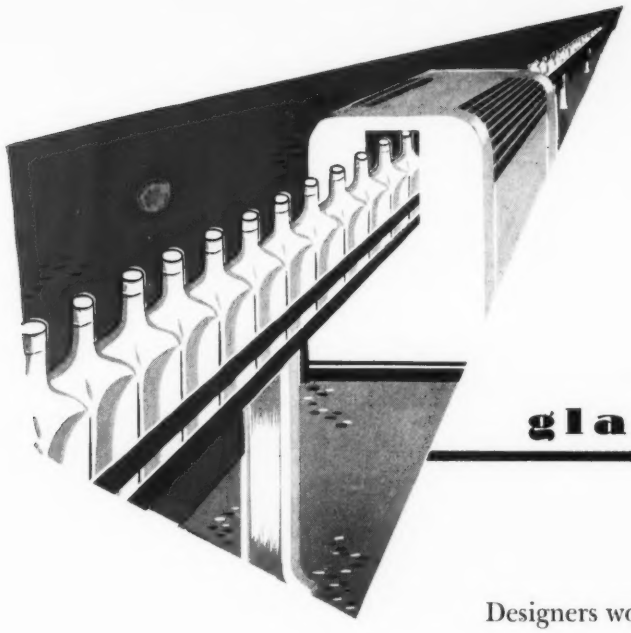
ST. LOUIS
2415 S. Third St.

SAN FRANCISCO
440 Brannan St.
Also J. C. Millett Co.

IN CANADA:
Mundet Cork & Insulation, Ltd.
35 Booth Ave., Toronto

MUNDET Closures

MOLDED CORKS • MOLDED SCREW CAPS • EMBOSSED WOOD TOP CORKS • CROWNS • PLAIN CORKS



glass at work

Designers worth their salt take into consideration, as an integral part of their *total* glass package design, the use of the container on conveyors, in cleaning, filling, labelling, cartoning and other types of machinery. They design not only for the eye of the buyer, but for all the stages of production through which the package must pass before it is viewed on a shelf or counter.

In the hands of experts, glass packages are planned to withstand the most rigorous stresses and strains of high-speed automatic packaging lines.

Carr-Lowrey designers are specialists in planning for production in glass. As a result, they know their material intimately—and how to take full advantage of all its possibilities. Bottles designed and produced by "3-point service" fit into the production line of the manufacturer for whom they are planned.

CARR-LOWREY
3-Point Service

creates

1 PRACTICAL
2 ATTRACTIVE
3 ECONOMICAL

glass packages for cosmetics, drugs, foods household products.

A simple, yet graceful bottle to attract the feminine eye, made for Elmo Sales Corp. from their design.

Carr-Lowrey Glass Co.

Factory and Main Office: BALTIMORE, MD.

New York Office: 500 Fifth Avenue **Chicago Office: 1502 Merchandise Mart**

SWEET MUSIC... from a famous band

REGISTERS RING—and sales go *up*—when your product catches the customers' eyes. You'll find that these trim "Cel-O-Seal" cellulose bands give plenty of extra "eye-appeal" . . . which leads to extra sales.

These bands come in a variety of colors, to blend with your bottle and label. They help protect the contents, too. Keep closures tight, discourage tampering and prevent contamination. Yet they cost but a fraction of a cent.

May we design a "Cel-O-Seal" cellulose band for *your* bottle?

DU PONT
REG. U.S. PAT. OFF.

CEL-O-SEAL
TRADE MARK
BANDS

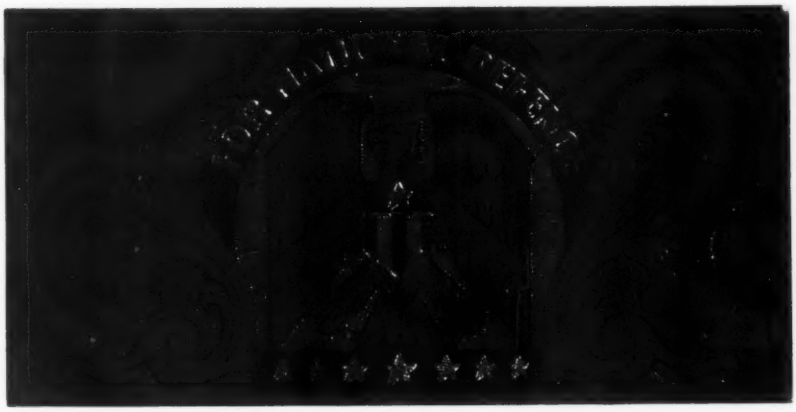
Sold by

E. I. DU PONT DE NEMOURS & CO. (INC.)
"CEL-O-SEAL" SECTION
Empire State Building, N. Y. C.

ARMSTRONG CORK COMPANY
GLASS & CLOSURE DIV., Lancaster, Pa.

I. F. SCHNIER COMPANY
683-89 Bryant Street, San Francisco, Cal.

FOR THE DURATION
. . . . *AND AFTER!*



Cameo has been developing a substitute for foil labels against the emergency. Foreseeing this crisis, we have developed CAMEOSHINE —a metallic surfaced paper which can be printed and embossed exactly like foil. See if you can tell the sample on this page from a foil label—you wouldn't notice any difference if we hadn't mentioned it!

Users of foil labels need not suffer the slightest delay or inconvenience due to the elimination of aluminum foil. The transition to CAMEOSHINE can be made quickly, painlessly and without dislocations or changes in production. In fact, once used, we predict you'll not want to return to former material.

Write for samples and prices.

CAMEO
DIE AND LABEL COMPANY
DESIGNERS and CRAFTSMEN
154 WEST 14th STREET
NEW YORK, N.Y.
WATKINS 9-8484

IN CANADA: CAMEO METAL SEAL & LABEL CO., LTD., 371 DOWD ST., MONTREAL

"Extra Sales pay for our cartons because WE GET ALL 4"

MANY of our clients say that ACE Cartons pay for themselves through increased sales and faster turnover. They expect and get packages convenient to handle, attractive to display and easy to *sell!*

Here at ACE an individual approach is tailor-made around every carton problem. We look at packaging from the commercial as well as the artistic standpoint—streamline everything down to functional essentials—those important elements that take every advantage of proportion, color and design. All this results in cartons which really sell merchandise . . . cartons which cost far less in the end.

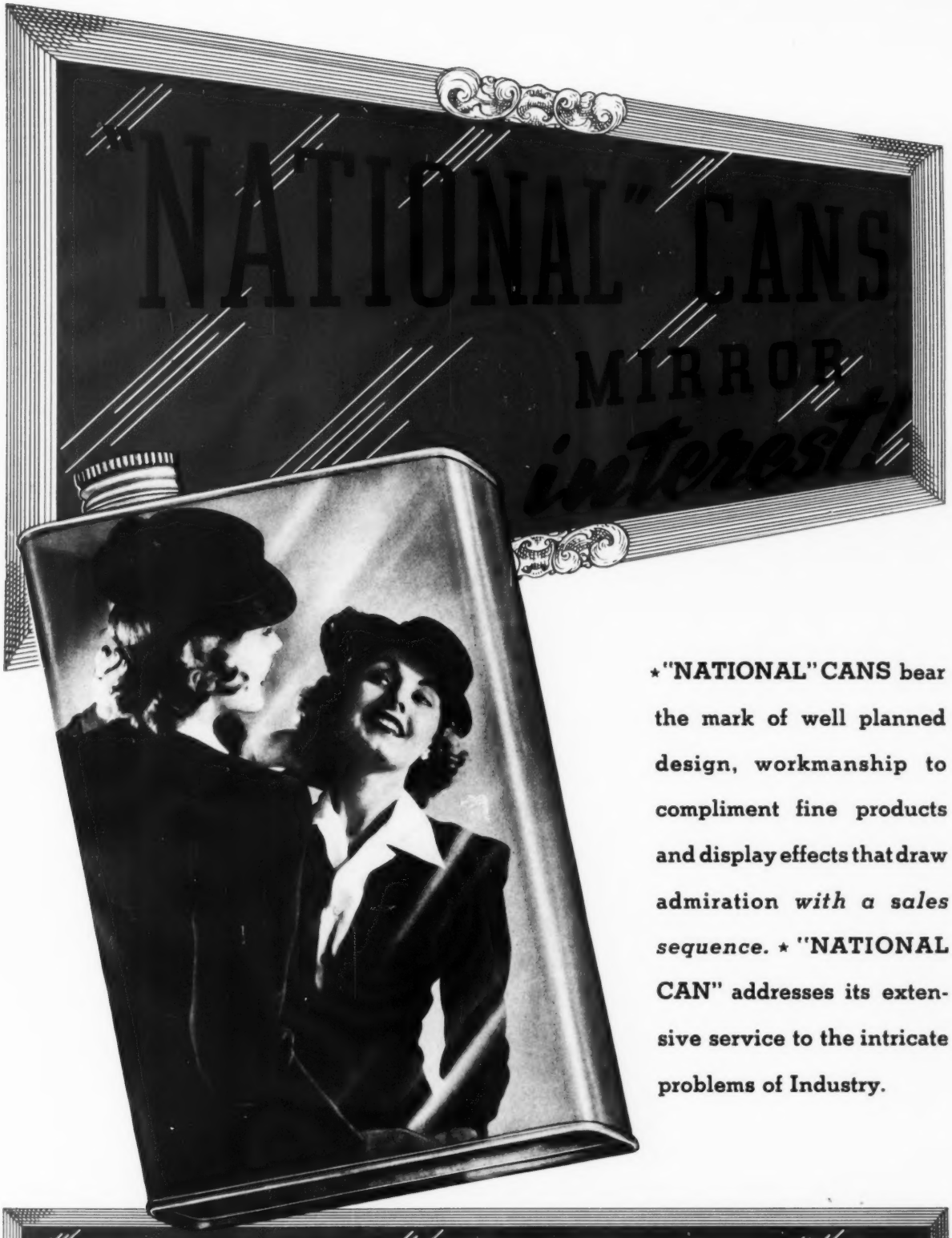
Let ACE brains, craftsmanship and experience work for you! Write us. Send along an old carton. You'll find your packaging problems solved for *good.*

ACE CARTON CORP. ACE CICERO, ILL. Creators

ACE Cartons

ACE CARTON CORPORATION
2544 South 50th Avenue, Cicero, Illinois
Folding Paper Cartons • Folding Displays • Display Containers

ACE PUTS THE *Sell* IN CARTONS



★ **"NATIONAL" CANS** bear the mark of well planned design, workmanship to compliment fine products and display effects that draw admiration *with a sales sequence.* ★ **"NATIONAL CAN"** addresses its extensive service to the intricate problems of Industry.

NATIONAL CAN CORPORATION

EXECUTIVE OFFICES: 110 EAST 43rd ST., NEW YORK CITY

NEW YORK CITY • BALTIMORE • MASPETH, N.Y. • BOSTON • CHICAGO • HAMILTON, ONT.

A NEW STOCK BOTTLE

of wide-spread usefulness in the **PERFUME** *and* **COSMETIC** *field*

N-30 - - *take a bow!*

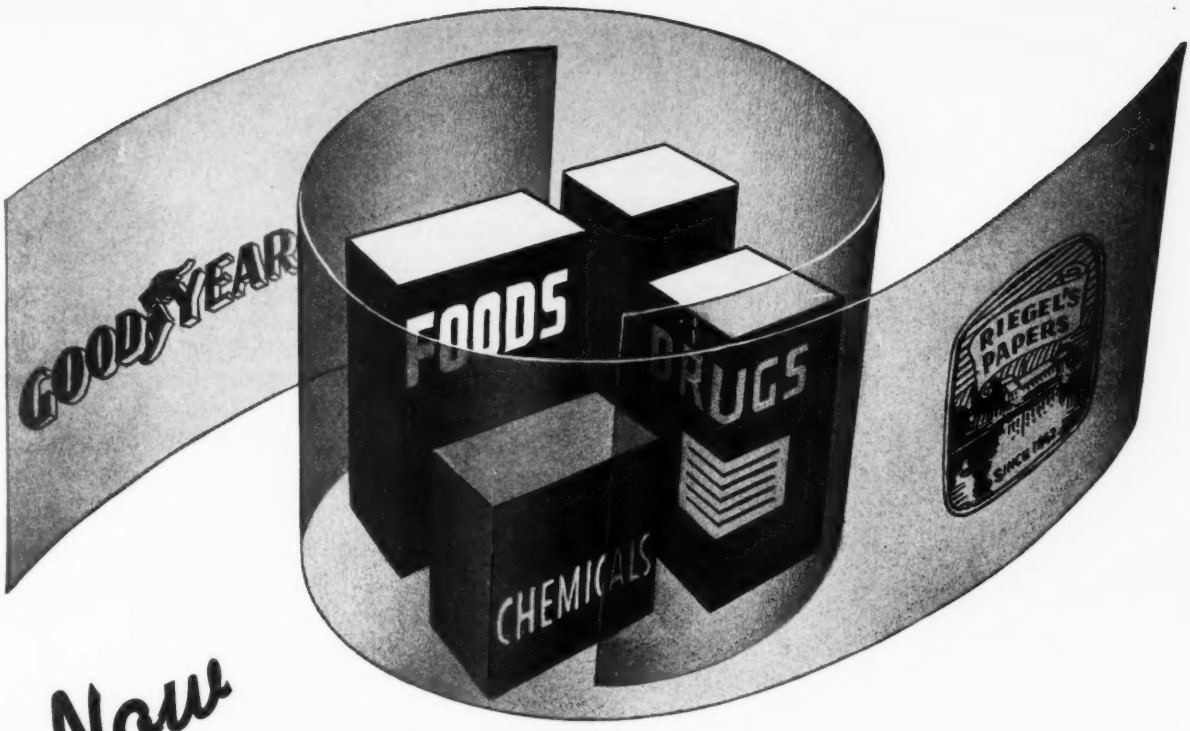
Here is a new Swindell stock bottle that sets a new high in smart, modern packaging without the expense of private moulds! It is particularly well suited for the perfume and cosmetic field—but many alert merchandisers in other fields will recognize it as the answer to their problem. In a broad sweep of sizes: ⅛ ounce, ¼ ounce, ½ ounce, 1, 2, 4, 6 and 8 ounces.

SWINDELL BROS., BALTIMORE, MD.

200 FIFTH AVENUE, NEW YORK • ROBERTO ORTIZ—HAVANA, CUBA

When you think of bottles think of

Swindell



Now PLIOLITE* DIAFANE

When two big companies, each leaders in their respective fields, collaborate to produce a better paper for packaging—it's certainly worth your careful investigation.

Riegel's Pliolite Diafane was released for restricted commercial use more than a year ago, after lengthy experimentation by our own technicians in collaboration with Goodyear's Pliolite specialists. As a result of its thoroughly proven commercial value, this paper is now presented for general use where very high moisture protection is necessary, and cost a deciding factor.

Tests on *machine-made* packages wrapped in seven leading moisture-proof materials have shown that Pliolite Diafane is outstanding in its moisture-resistant qualities. In addition, it is transparent and glossy, inexpensive to print, sealable with heat or glue, and it works efficiently on all packaging machines.

The use of Pliolite Diafane is definitely recommended for the packaging of popcorn, roll film, potato chips, dehydrated foods, prepared flours, soup mixes, hygroscopic chemicals, and a wide range of other products calling for a really moisture-proof package without attendant high costs. Write for samples and detailed data.

PLIOLITE DIAFANE

is not our only Pliolite coated material. Developments on other base papers are well under way—in fact, already in use on opaque glassine and on vegetable parchment. If your packaging problem calls for something entirely new—whether a liner, wrap or bag—Investigate!

•

*Trade-mark, The Goodyear Tire and Rubber Co.

RIEGEL PAPER CORPORATION

342 MADISON AVENUE • NEW YORK, N. Y.

37

6 ALUMINUM, DEFENSE, AND YOU

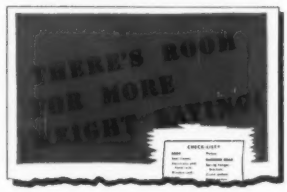
DEFENSE ISN'T JUST AIRPLANES!

They are first in the hearts of the people and first in the headlines. But Defense is also ten thousand other military necessities, clear across the board, and Alcoa Aluminum goes all the way across with it.

Sheets and shapes and wire; castings and extrusions and forgings, nuts and bolts and tubing and rivets; all these and more forms of Alcoa Aluminum are being chewed up by scores of industries in military applications as varied as the peace-time applications of aluminum used to be.

AND FOR THE SAME REASONS.

Before Defense, one of our advertisements to civilians started off with the headline reproduced at the right. A whole volume of economic and engineering common sense was distilled into those six words. Now, Defense is taking all the aluminum we can make because that headline is a fact.



THIS IS WHAT we were saying, *Before Defense,* to prospective buyers of Diesel engines. A great new industry was feeling its way. Properly, it was weighing the advantages of using Alcoa Aluminum. But Defense had to have those advantages right away, and civilian users of Diesels now have to wait for their aluminum.

THE FIVE WORDS in the headline of this advertisement (B.D.) at the right introduced straight talk about the fundamentals of weight saving with Alcoa Aluminum: vital reasons we thought (and think) that everybody should know. Defense hasn't time to explain that these are precisely its reasons for using aluminum; it just takes all it can get.

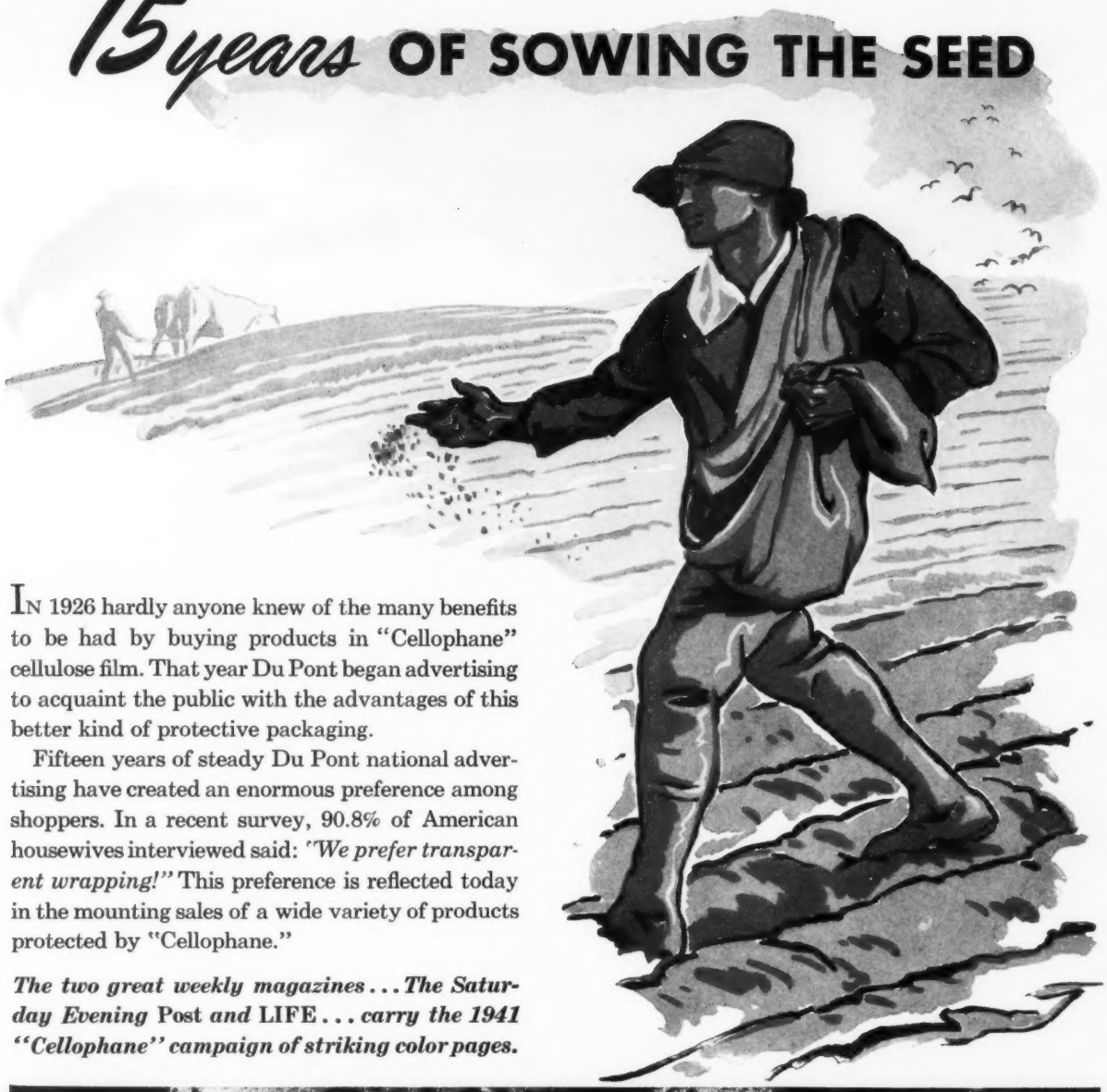
LAST MONTH DEFENSE TOOK over 50 million pounds of Alcoa Aluminum, for the simple and clear reason that certain advantages of aluminum are fundamental.

When the emergency is over, Alcoa is going to be talking the same simple language, selling the same fundamentals. And it will have still better techniques and new uses of Alloys of Alcoa Aluminum for you to put to work.

RIGHT NOW, we are in high gear for defense; our foot is on the floor board; we intend to keep it there for the duration.

ALUMINUM COMPANY OF AMERICA

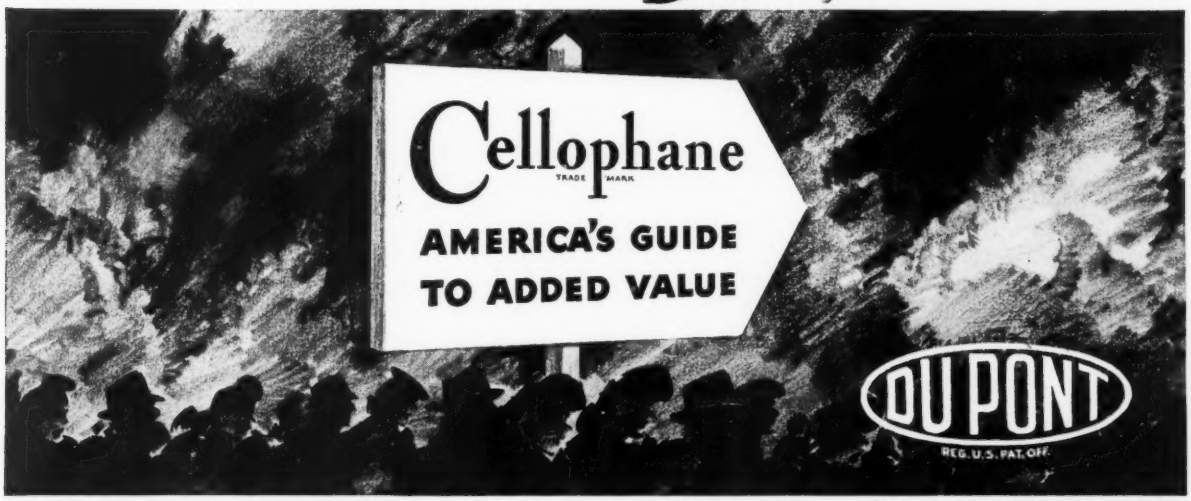
15 years OF SOWING THE SEED



IN 1926 hardly anyone knew of the many benefits to be had by buying products in "Cellophane" cellulose film. That year Du Pont began advertising to acquaint the public with the advantages of this better kind of protective packaging.

Fifteen years of steady Du Pont national advertising have created an enormous preference among shoppers. In a recent survey, 90.8% of American housewives interviewed said: *"We prefer transparent wrapping!"* This preference is reflected today in the mounting sales of a wide variety of products protected by "Cellophane."

The two great weekly magazines . . . The Saturday Evening* Post *and* LIFE . . . *carry the 1941 "Cellophane" campaign of striking color pages.



"CELLOPHANE" IS A TRADE-MARK OF E. I. DU PONT DE NEMOURS & CO. (INC.), WILMINGTON, DEL.

Product engineers select the proper plastic; consider every molding problem.
A laboratory check assures the quality of the plastic material.
The designer's knowledge of plastics results in an economically practical product.
Complete moldmaking facilities are a definite aid toward a good package.
Application engineers coordinate problems of all concerned.
Five G-E plastics plants house about 900 presses.

A COORDINATED PACKAGING SERVICE

In the manufacture of your own product you can readily understand the value of coordinated effort, the advantages of a complete productive operation.

In the manufacture of a package for this product you can command this same service by selecting General Electric as your plastic molder. You can place the undivided responsibility upon them and be assured of a package of beauty, utility and economy.

G.E.'s plastics packaging service starts with designers who know modern styles and trends and have a thorough knowledge of the characteristics of each type of plastic material. It follows through a veteran organization of application and product engineers, chemists, moldmakers and molders until the completed package is perfected.

The G-E formula for plastic packages long has been assurance for successful merchandise. Your request for details will receive prompt attention if you write Section N-45, Plastics Department, General Electric Co., One Plastics Avenue, Pittsfield, Mass., or contact your nearest plastics representative in Chicago, New York, Detroit, Fort Wayne, Cleveland, Rochester, Lynn, Philadelphia or Meriden.

PD-284

PLASTICS DEPARTMENT

GENERAL ELECTRIC

THIS IS ONE PACKAGE THAT DOESN'T NEED A FEDERAL SPRAYER

FEDERAL sprayers—of metal or colorful plastic—are *functional.* They are designed to help dispense liquid products such as glass cleaners, mothproofing liquids and toiletries.

We'd be the last to tell you to try to feed a baby with one of our sprayers. But we *know* from the actual market proof of millions of sales annually that Federal sprayers *do* boost the sales of the type products mentioned above, as well as those of lotions and other toiletries. In fact, in some fields Federal sprayers have become so accepted, it would be impossible to market a new product without one.

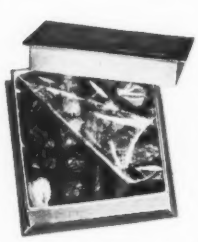
Let us show you how one of these sales-builders can lift the sales of *your* product.

CLOSURES WITH A FUNCTION

Federal TOOL CORPORATION

400 NORTH LEAVITT STREET • CHICAGO, ILLINOIS

FOR ALL THESE PRODUCTS
NASHUA
DESIGNS AND PRINTS
SALES-BUILDING PACKAGING WRAPPER



Gales Chocolates ("Cellophane" embossed and printed by Nashua)

Walter Baker Chocolate Bar ("Cellophane" printed by Nashua)

Felin's Gold Medal Baco ("Cellophane" printed b Nashua)

Gold Bond Haddock Fillets ("Cellophane" printed by Nashua)

Joan Manning Chocolates ("Cellophane" printed by Nashua)

R. J. Peacock Sardine (Nashua-printed Glassine

CREATORS • CHEMISTS • CRAFTSMEN
NASHUA
MAKES PAPER MAKE MONEY FOR YOU

WHATEVER Your Packaging Problem, Let Nashua Creators, Chemists and Craftsmen Help Solve I

Write for Free Samples

NASHUA GUMMED AND COATED PAPER COMPAN

Department M-9 Nashua, New Hampshire

A Peanut Butter Kits (printed cellophane) and waxed paper by Nashua)
B Statler Towels (Nashua-printed Tissue Wrapper)
C Squirrel Salted Peanuts ("Cellophane" printed by Nashua)
D American Thread ("Cellophane" printed by Nashua)
E Red Cross Toilet Tissue (Nashua-printed Tissue Wrapper)
F Erving Homespun Napkins (Nashua-printed Imitation Glassine Wrap)
G Necco Luncheon Bar (Nashua Opaque Glassine Wrap)
H Ten Crown Charcoal Gum ("Cellophane" printed by Nashua)
I Cote's Bread ("Cellophane" printed by Nashua)
J Rainbow Wafers (Nashua Glassine Wrapper)
K Chatham Blanket (Nashua Decorative Box Liner)

Look for the Triangle NASHUA Sign of a Nashua Value

MODERN PACKAGING
SEPTEMBER 1941 VOLUME 15 NUMBER 1

PHOTO, COURTESY OF UNITED AIRLINES

Factory Fresh in Corrugated Prepacks

In the sixteenth century Queen Elizabeth wore a fluted ruff around her neck. Sometimes it is said that without the principle of the gauffer irons which crimped and fluted those ruffs, our modern economic system could not function.

Whether or not the irons used for crimping textiles in the Elizabethan era were the ancestors of the machines that make corrugated board, the fact remains that without such shipping material today, our distribution system would be pretty well gummed up.

No one person can be credited with the invention of corrugated shipping containers. Early development in the United States is usually credited to Albert L. Jones and referred to as the Jones Patent of 1871.

About 1900 began a new era in methods of distribution of practically every commodity used by man. Instead of a jumble of barrels, baskets and bins, all manner of merchandise began to move in smaller unit packages—containers which would protect these commodities from spoilage, breakage, contamination, handling, moisture, dryness—and every other conceivable factor that might impair their value on the way from factory or farm to ultimate consumer. Manufacturers whose products were made at long distances from markets searched for shipping materials which would give good protection but would be lighter in weight to reduce freight costs and also be easier to handle.

The period from 1900 to 1910 was the most important decade in the commercial development of corrugated paperboard shipping containers. During those years, the shipping container was fully developed in materials and in structure. A program of education was started with the railroads and users. By 1910, although still small, the corrugated industry was well launched.

These early struggles on the part of suppliers and shippers for acceptance of corrugated containers are a

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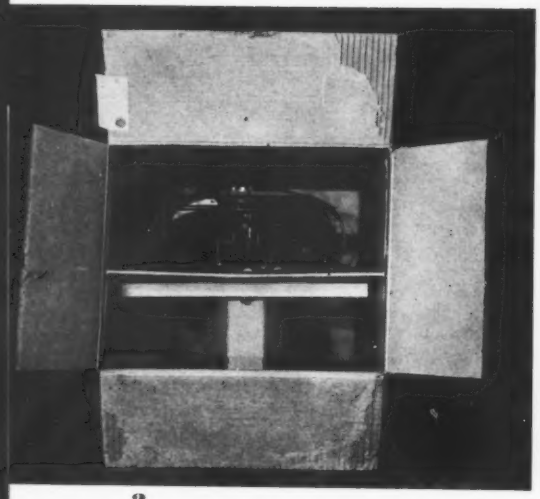

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1. The Duncan & Miller Glass Co. pack hand-made glassware in this decorative octagon-shaped corrugated "barrel." **2.** This shock-proof corrugated box has solved shipping problems for counter scales made by The Standard Computing Scale Co. **3.** Method used by Westinghouse Electric & Mfg. Co. for packing table and wall fans. A pad with die-cut glued corrugated pieces forms a well into which fan base rests. Over motor housing is a die-cut creased sheet. On the rear side of sheet and over motor housing is a small wood cleat with bolt assembly to guard support of fan. **4.** Old and new printing on the carton. Note improvement of the design for brand and product identification on new one at right.

quaint contrast to the almost universal acceptance of these cartons today for the shipment of thousands of commodities in almost every classification of merchandise you can mention. The Freight Container Bureau of the Assn. of American Railroads now issues bulletins of specifications for practically every kind of an article that can be shipped in corrugated board. And last year the airlines in the United States carried approximately 750,000,000 lb.-miles of air express, the greatest portion of which was shipped in corrugated or solid fibre containers.

An interesting comparison of this latter situation with early days of the industry, was a recent comment made by an airlines executive.

"We don't specify corrugated or fibreboard," he said. "In fact, we'll except anything that will go through the cargo doors of our planes, but anyone who doesn't use corrugated containers is foolish because of the added cost he must pay for the additional weight of many other packing materials."

Perhaps the most interesting phase of the corrugated board industry today, aside from the varied uses of this type of material in the national defense program, is the tremendous growth of what is known as the unit or factory package that goes direct from the manufacturer to the consumer, without repacking.

About 1910, the electric flat iron came into general use. It was heavy. Ordinary cardboard boxes were impractical. Something more substantial was needed. The problem was solved with corrugated board. Manufacturers put their irons in corrugated unit packages. The irons went directly to consumers in these packages. This type of pack was so successful that other kinds of appliances were put in the same type of containers. Retailers liked these packages because they reduced damage, handling and cost of repacking in stores.

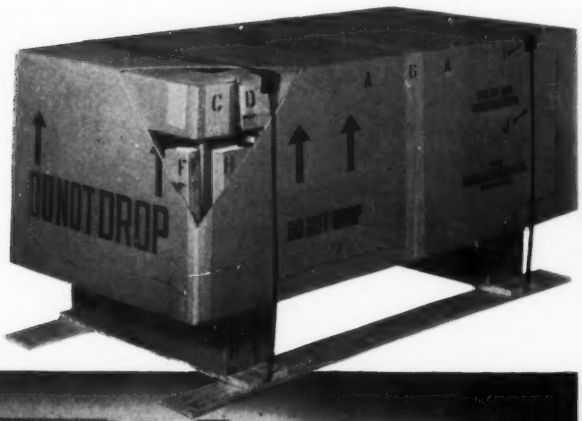
Could these materials be adapted to other kinds of packs? The china and glassware trade began to take notice. The shipping of breakable items of this type had always been a trial for manufacturers and retailers. China and glass used to arrive at their retail destinations in barrels, shrouded in mounds of untidy, inflammable excelsior. The trail of excelsior stretched from the factory shipping room to the home of the ultimate purchaser. The factory barrels had to be unpacked in the store, first to see that the merchandise was unbroken, secondly, to be displayed where the customer could see it. When it was purchased, it had to be packed up again and taken to the customer's home. There, out it came again and, by the divine law of chance and a careful truck driver, perhaps it was intact, with no broken pieces to be returned. Damages to this type of shipment en route from factory to consumer reached considerable proportions, to say nothing of the costs due to many handlings.

All of these disadvantages of previous shipping methods in the china and glass field led to the development of scores of different types of corrugated packs with shock-proof nestings, liners and partitions. Most of these new packs, too, were unit packs—a dinner set, a breakfast set, a water set, a dozen glasses, a half dozen goblets, etc.—that could be packed at the factory and sent to the retailer in master cartons for storage in department store warehouses. Only a sample had to be opened and kept on store counters for the customer to see and make a selection. Thus, not only a great deal of handling was eliminated, but a great deal of store display space was saved. At the same time, customers were assured of a "factory-fresh" pack, unhandled and untouched until it reached their homes.

During the twenties, this type of packaging had gained such wide acceptance that the National Retail Dry Goods Assn., in cooperation with a large group of manufacturers and container representatives, undertook a study published in 1929 under the title, "Report on Unit Packing, Shipping Containers, Store Packing."

Furniture packing affords an interesting instance of the amazing growth of corrugated. The 1929 NRDGA

5. and **6.** Corrugated prepacks devised for steel desk and filing cabinet by The Globe-Wernicke Co. **7.** Corrugated prepack adopted for both upholstered and case furniture by Tomlinson of High Point. Wood framework permits cradle packing. Benefits include 25 per cent reduction in shipping weight.



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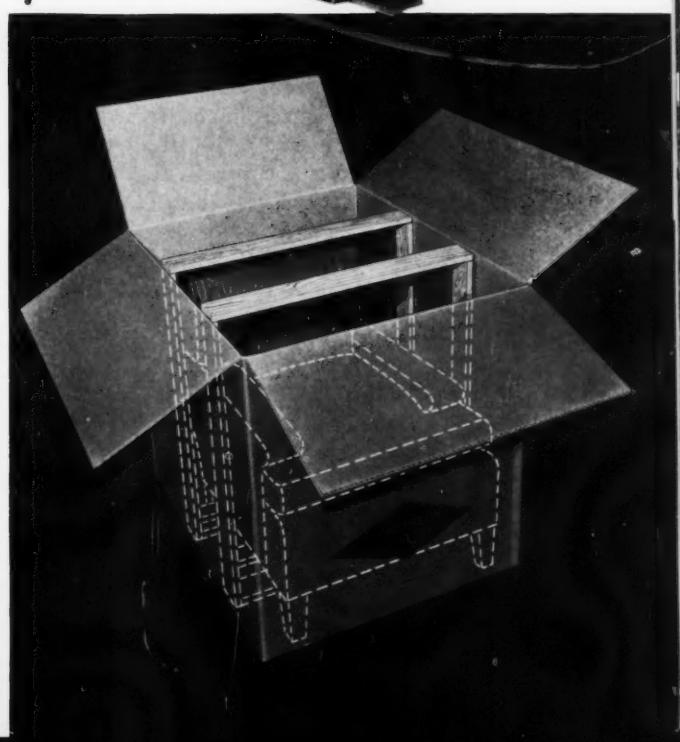


8 9 10

report mentions unit packages for such articles of furniture as magazine racks, card tables, sewing and smoking stands. Today, furniture manufacturers have adopted this packing for practically all types of furniture, including such heavy pieces as couches, dressers, buffets and beds, to the carton prepack.

The furniture prepack has the same advantages to the retailer and consumer as the unit packs for other kinds of merchandise. In addition, it reduces substantially costs for refinishing.

It is estimated that the average transportation saving per piece of furniture shipped in cartons is at least 25 per cent. Two shipments of bedrooms suites show how this saving is made possible. A manufacturer in the South shipped 50 suites to a retailer in corrugated cartons and another 50 suites in other materials. Those which came in the corrugated cartons were loaded 182 pieces to a carload while those in crates could be loaded only 128 pieces in the same size car. The freight bill for both was substantially the same, but 54 more pieces were transported in cartons than in crates for the same amount of money.

There are a number of efficient ways to prepack furniture in corrugated containers. On the average, consumer complaints on these carefully designed packs run less than 1 per cent, according to those who have used them. Some retailers, who use the suspension type pack, object to the use of nails in the suspension lumber instead of screws. They don't like to have their delivery men hammer lumber from the pieces in the customer's house. To prevent this, a new gadget has been introduced on the market, known as a cutting cup. This cutting cup is a thimble-shaped piece of steel about $1/4$ in. high that fits over the screw head. It is provided with a cutting edge at its outer end and can be felt with the fingers through the carton. When given a slight blow with a hammer, the cutting edge pierces through the carton and exposes the screw head. Screws can then be removed to release the piece of furniture inside the carton. The front of the carton is then cut across the top and down the sides and the piece is removed.

The Globe-Wernicke Co. manufactures more than 4,000 items used in modern business offices, ranging from a 3 by 5 in. filing card to a steel army cantonment building. They now pack approximately 90 per cent of their volume in corrugated shipping cartons.

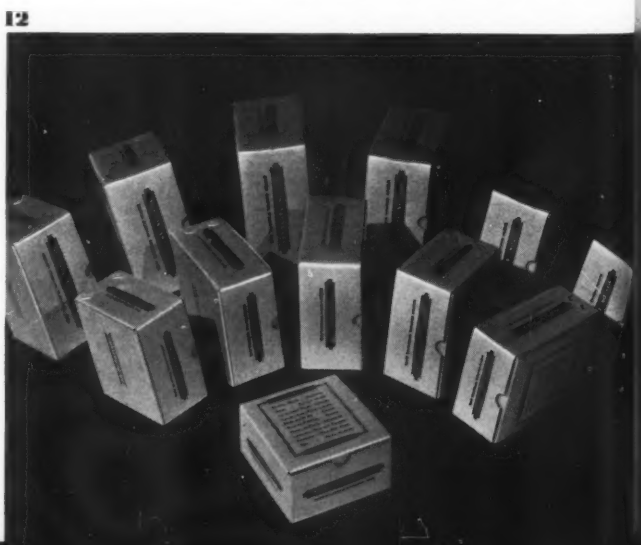
J. L. Ackerman, shipping manager of this company, wrote of his company's corrugated packaging:

"It was my pleasure, at the last American Management Assn. Packaging Conference held in Chicago last April, to give an analysis of the packing employed by our company for the shipping of two of our chief products, namely, a steel vertical letter file and a steel desk (see illustration on page 33).

The filing cabinet carton is made with two 30-point cylinder kraft liners and will withstand a severe puncture test. Flaps are glued and taped to increase the rigidity of the container. Swing pads suspend the cabinet from the interior of the carton at all points. The company has used these cartons for more than 18 months and during this period has shipped thousands of files in this manner with practically no damage claims and reports an approximate saving of 25 per cent on freight and the shipping material. The wrapper for the steel desk is made with a 30-point Fourdrinier outer liner and a 16-point inner liner. The wrapper is slotted to give two thicknesses of board over the entire drawer section and is scored to afford a continuous sheet around corners and edges. Base tubes of 200-test corrugated are used to protect the legs in transit. Double wall 200-test corrugated cushioning pads, scored and slotted, give two-thickness protection to the entire desk top edges. Wood skids and a board de-

12. Corrugated shelf packages facilitate stock-taking and inventories, display brand names and offer consumer an untouched article in a neat, attractively-designed unit pack.

12



11

8 to **11.** Suspension pack for furniture using only screws. Lumber is attached to the back of furniture with screws inside of new gadgets called cutting cups. Where bulges appear on outside carton, a few light hammer taps will cut through the carton and expose the screw heads. Workman can then loosen the screws, cut away the front of the carton and lift out the piece. The suspension lumber remains attached to the carton—leaving no muss. There has been no pounding in customer's home. Plan by a Natl. Retail Furniture Assn. Committee and Roy Wales.

signed to fit the hollow part of the desk island and nailed to the cross members of the skid prevent the desk from shifting. Metal straps are applied over the cross pieces of the skid to prevent the strap from pulling loose. The skid is so constructed that it is approximately the same size overall as the corrugated cover. This is an important feature as it permits the desk to ride in a plumb position no matter how it is loaded. Other pads protect the ends of the desk and hold the drawers securely in place. Corner irons are used to prevent the steel strap from cutting into the corrugated wrapper. A metal strap is used to hold the desk wrapper in place and to hold the skid firmly to the bottom of the legs.

Department stores, perhaps, have been leaders in the use of corrugated factory packs, but this method of packaging is also gaining wide favor in other retail outlets. Hardware and mechanical accessories are more and more frequently seen in corrugated boxes. This has many advantages. It facilitates stock keeping and inventories when the loose ends are arranged in neat packages. It takes merchandise which formerly was hidden away in back rooms into the front of the store, helps manufacturers to display their brand names on the package.

The colorful printing and embossed effects which can now be applied to corrugated board have brought to the fore new unit gift packages made of these materials.

Unit packs in the food field are also invading the nation's markets in corrugated cartons. Hygrade Food Products Co. recently selected this type of container for its mail order business in Virginia Style Ham. To merchandise this product well, a unique package was needed. Final selection was the treasure chest package illustrated on page 36.

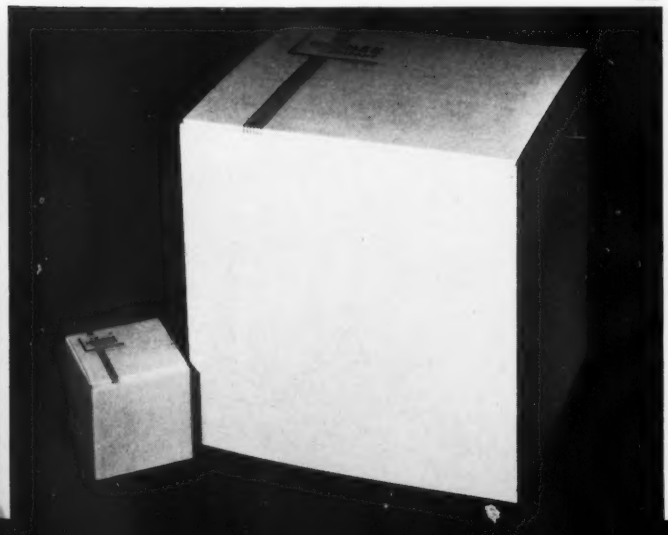
The greatest increase of corrugated containers for foods, however, is in the commercial shipping container. Enormous quantities of eggs, fruits and meats are now being shipped in corrugated containers, which are continually being improved with wax coatings, moisture-proof linings and inner wraps of latex so that they can resist temperature and moisture conditions in storage.

Many carloads of eggs have been shipped from Iowa, Nebraska and Minnesota points to Eastern cities in 30-dozen corrugated cases. Thousands of Eastern poultrymen are using them in Eastern states where eggs move by trucks. There is growing demand for these modern, clean packs, especially designed to withstand cold storage conditions. In spite of increased cost of kraft materials, shippers report considerable savings in this type of shipping container.

Military goods of all kinds are now moving in corrugated and solid fibre materials. Manufacturers offer a rough guess that 10 per cent of the paper board's total capacity will soon be going for defense needs. The magnitude of these operations may be envisioned

13. The Higbee Co., Cleveland department store, speeded up Christmas wrapping by using pebble-grain-embossed corrugated gift boxes, which also enhanced appearance of their holiday wraps. **14.** Bloch & Guggenheimer also used a corrugated gift box.

13



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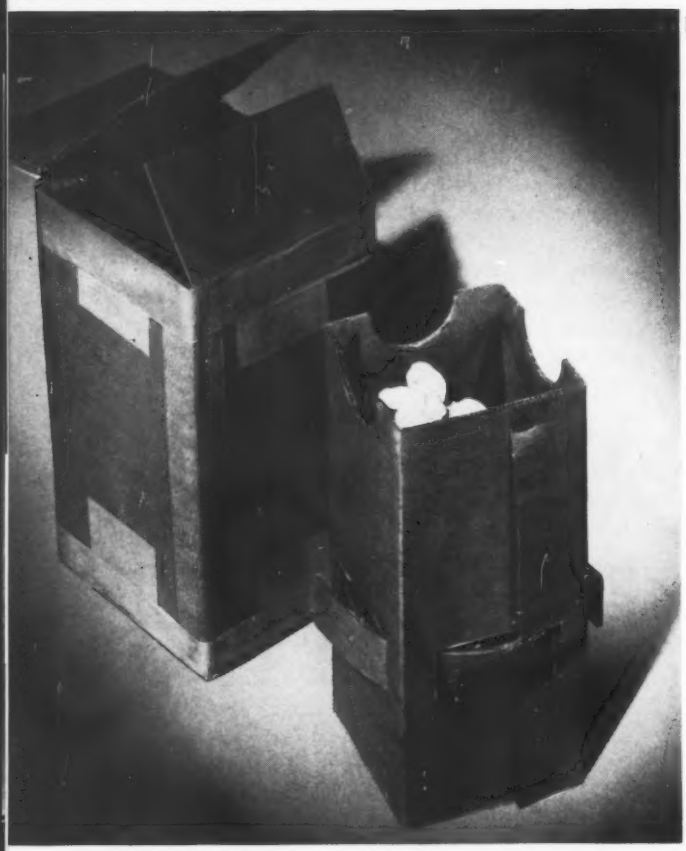

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18

by an example of the size of one of these government orders. One shirt manufacturer, alone, may receive a single order for as many as several million shirts. Multiply that by all the manufacturers of the country who are making clothing alone for Uncle Sam's forces and you have some idea of the number of containers required for this purpose.

Estimated paper production in the United States in 1940 was somewhere in the vicinity of 14,372,000 tons. This included newsprint, wrapping, writing, cover, tissue, absorbent, building and miscellaneous. Paperboard accounted for 43.5 per cent of the total or substantially over 6,276,000 tons, about 30 per cent of which was kraft and 70 per cent was developed from reclaimed paper. More than 40 per cent of this 6,276,000 tons is made into corrugated board; 6 per cent is made into solid fibre.

The solid fibre shipping container is closely allied to the corrugated industry and many manufacturers who make the latter, also make the former. However, the solid fibre container has never developed to the volume of the corrugated. One of the biggest years for solid fibre containers was 1916 when 37 per cent of the shipping cases were made of solid fibre, that is, a board made up of laminated flat sheets of various qualities. At that time the United States was on the verge of World War No. 1 and was shipping tremendous amounts of food, clothing and war materials to Europe. Perhaps the present national emergency will again increase the use of solid fibre. A recent news item in the publication, *Printers' Ink*, stated that the government needs some 34,000,000 high test solid fibre, waterproof containers for shipping foods to England. Solid fibre drums with protective film liners are being used quite extensively for shipments of valuable chemicals.

D. C. Everest, president of the Marathon Paper

15. Corrugated carrying case for miniature racing car has re-use features and is a moving poster advertisement wherever it goes. **16.** The corrugated liner for this carton holds a potted plant. **17.** Corrugated carton used for shipments of army clothing, shown in a testing drum. **18.** Treasure chest package of corrugated for Hygrade Food Products Co. hams.

Mills and active in the paper section of OPM, sees no problem in connection with cartons and shipping cases except delays of deliveries. Kraft prices on the average are considerably higher, but even in view of this, they will not be prohibitive in comparison with rising costs and scarcities in other types of materials. Basic paper materials are indigenous to North America, therefore, there are not likely to be the shortages due to the stoppage of imports as has happened in England during the war. Delays, of course, may be inevitable due to the priorities for defense production.

In a recent query for opinions from various manufacturers who are large users of corrugated unit packages, answers were almost unanimous in favor of this shipping method. In practically all instances, the letters expressed favorable acceptance of such packaging by dealers and consumers. There were practically no complaints about damage or construction. Most companies said they expected to continue the use of such packs and the majority wrote that they expected to make greater use of this convenient type of pack. Some commented on dealer preference for decorated cartons. Some suggested improvements they would like to have made in sealing methods, closure problems and moisture proofing.

The foregoing gives some idea of the vastness of the corrugated industry and of what an integral part it plays in the movement of commodities from their source of production to the place where they are finally used. The corrugated unit package has won acceptance in almost every field of merchandising.

Acknowledgments and appreciation to The Hinde & Dauch Paper Co., The Ohio Boxboard Co., Container Corp. of America, Robert Gair Co., Inc., Marketing Service Corp., and the hundred or more leading users of corrugated shipping containers who cooperated with us in the assembling of data for this article.

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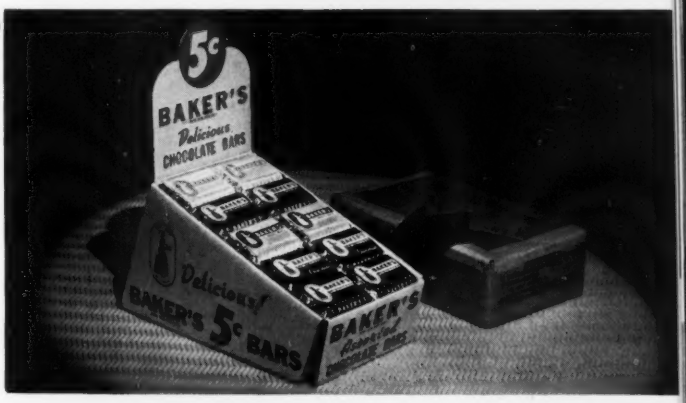

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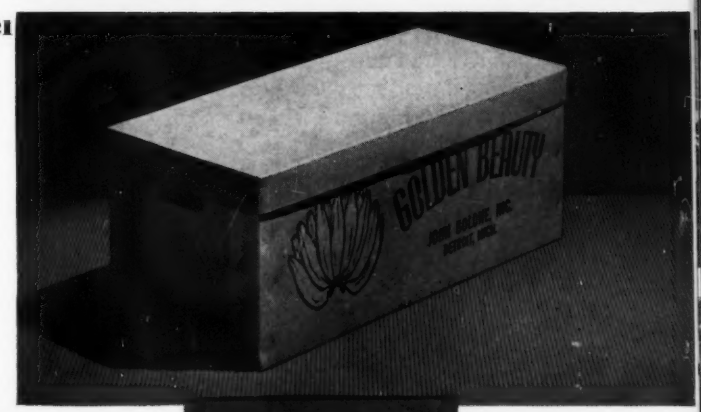
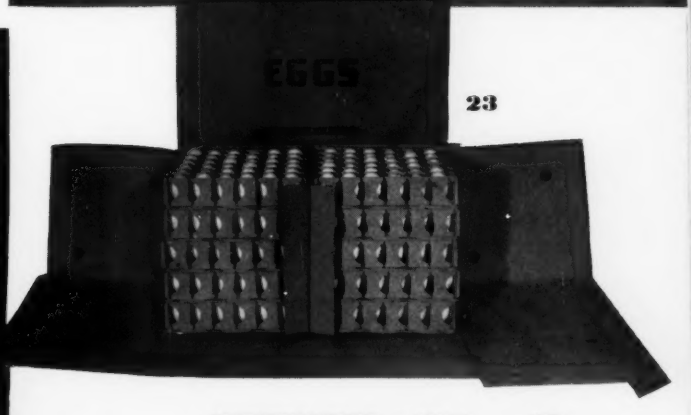


19 and **20.** Corrugated shipping containers can be converted into attractive counter displays simply by folding flaps into position as display panels. **21.** Corrugated shipping box which holds one stem of bananas, protects the fruit and provides a place for the display of a brand name. **22** and **23.** Many carloads of eggs are moving in these 30-dozen corrugated cases.

22



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Selling by Contrast

Today meets yesterday in a super-market in Syracuse, N. Y., owned by dynamic merchandiser, Laurence A. Johnson. Today's market reveals row upon row, stack after stack of modern streamlined packages temptingly placed and brightly lighted to catch the customer's eye. But, tucked away in a corner of this super-market, stands a replica of last century's country store, complete from the potbellied stove to hanging kerosene lamps, from the undercut counters (to allow hoopskirted shoppers standing room) to the inevitable checkerboard and cracker barrel. Contrast between the old and the new has been used often with telling success by both manufacturers and retailers. Old automobiles, old furniture, old advertisements, old books—in fact, anything that arouses feelings of nostalgia or recalls vividly historical associations—have proved their real drawing power in a countless number of merchandising stunts.

For pictorial appeal and dramatic presentation, the Johnson super-market is an outstanding example of merchandising by contrast. Yesterday's methods of selling in bulk stand out sharply against the modern ways of prepacking for self-service. In the new super-market even dairy products are prepacked for this pur-

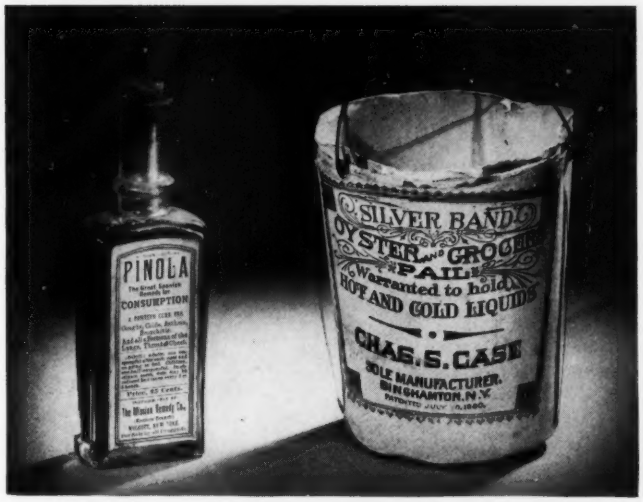
pose. In the old country store the cracker barrel, the spice jars, the many items sold without any package whatsoever, such as household utensils, hats and other articles of wearing apparel tell an accurate and arresting story of how selling was done a hundred years ago.

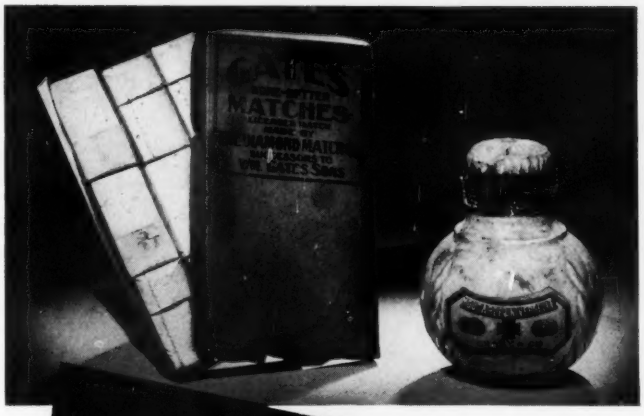
One glance at the old store, fittingly served by a venerable gentleman, is more than enough to convince the consumer of the forward steps made in modern merchandising as evidenced by the economic, efficient and sanitary service of a super-market.

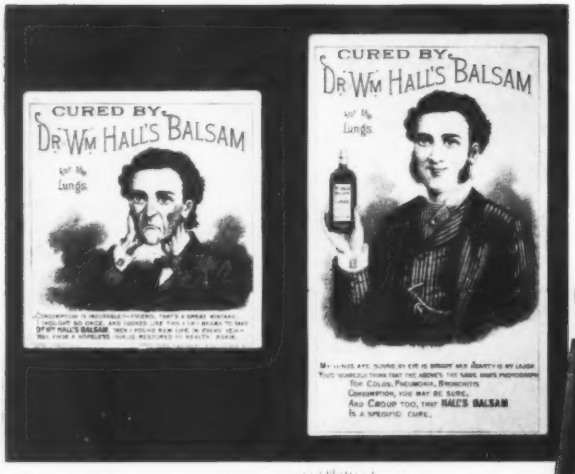
But packagers and displayers of merchandise cannot dismiss their own origins as easily as all that. Way back in the dim past of packaging some results were achieved which today are still to be marveled at. The effectiveness of some of the early brands such as P. Lorillard Co., Nestle's, Postum Cereal Mixture, Jello and others is best evidenced by their continued existence in today's highly competitive market. Even going back this far in packaging's past we find designs that are still effective today, indicating just how long-lived a good design can be.

We find many packages that are unchanged in appearance and effectiveness on today's market. We find the original "halitosis" copy on a wall-dispensing display of "Certified Pure Blend Pellets." A headline across the top of the display asks, "How is your breath today?" in attempting to influence consumers of that day to sweeten their breath. An early use of the label as premium is seen on the "None Such Consommé Soup" can which utilizes both sides of the label for promotion. The visible exterior is devoted to the soup and the reverse side of the label tells of the many premiums to be had for the girl's head on the label.

The wide mouth jar which is today enjoying much popularity has its ancient counterpart in the "Home-Made American Style Pickle Barrel." The non-tipping bottle is not new. Bixby's Royal Polish used a functional jar of this type as far back as the last century. The non-slip bottle about which we have heard so much in recent years is not quite as recent as many







of us have supposed, apparently. Keuka Grape Catsup was packed in a bottle designed to prevent slipping by means of a whole series of parallel raised ridges. A diamond-shaped indentation is just large enough for the diamond-shaped label which carries a most effective sales story. The diamond motif is carried out still further on the neck of the bottle which bears the company's name and address.

On the other hand, we can see the need for progressive modern legislation when we examine the bottle formerly used for Warner's Log Cabin Extract which was apparently an equally good remedy to treat "rheumatism, neuralgia, burns, scars, sprains, pain in back, lungs, sides and limbs, swollen or stiff joints, contracted tendons, frost bite, stings, gurry sores," etc., and could also be taken internally with equal salutary effect on "cramps, cholera, cholera morbus, dysentery, summer complaints, colic, pleurisy," and many other ailments. Not only is the label misleading but also the shape of the bottle itself is calculated to give an effect of a larger content than the consumer actually got. A "false front" effect is achieved by making the front of the bottle much wider than the rear which tapers to an area about one-third the width of the front. Nowhere are the contents given. The bottle is packed in a most attractive but equally misleading carton which is made the width of the front of the bottle and not of the back. The company utilized a premium appeal through the application of a stamp over the cork closure. This stamp was good on demand "for value received we promise to pay the bearer one cent." Packed with the bottle is a booklet advertising the many other Warner home remedies available and the diseases that they are claimed to cure. The cover of this booklet is attractively lithographed in many colors. Circulars in ten foreign languages are also enclosed to make sure that every consumer becomes acquainted with all Warner products. The carton also contains a small corkscrew for opening the bottle. (*Continued on page 118*)

Substitutes in Wrapping Materials

by HAROLD A. LEVEY

The author of this timely article has been in general consulting chemical engineering practice since 1927. During World War I he was in charge of airplane lacquers for the Bureau of Aircraft Production. At present he is president of the American Products Mfg. Co. and of the Inceloid Co., Inc. He is a Senior Fellow of the American Institute of Chemical Engineers. Modern Packaging is also indebted to Mr. Levey for his conduct of the U. S. Patent Digest, a department which is of increasing interest to our readers.

The striking aspect of World War II is that the role of materials is as important as that of men. Vast amounts of supplies of all kinds are required for modern warfare. This means a drain on our natural resources and substantial diversion of materials from our regular peacetime industries in this country.

As metals are probably needed in larger volume than almost any other type of substance, there is naturally a greater variety of metals on the Priorities List than any other material of construction. While many metals can be worked readily into thin sheet form as foil, only two metals have found extensive use in this way—tin and aluminum. Ease of workability into sheet form, characteristics which make them particularly suitable for wrappings, attractiveness of surface luster, permanence of finish, versatility and novelty aspects of the metals in sheet form, and last, but of first importance, cost account for their wide and diversified usage.

Tin as a self-sustaining sheet or foil has long been used as a modern wrapping material. It is soft and easily workable, has brilliance and permanence of surface and is reasonable in cost. These facts have given tin a permanent place as a foil wrapping. However, the present emergency soon revealed the extremely small natural domestic sources of supply and, with the beginning of restrictions in international shipping, tin soon found itself replaced by aluminum as a metallic foil wrapping.

As soon as aluminum became available in large quantities as a packaging foil, it promptly superseded a great part of the tin foil business. This was due to a number of reasons. Aluminum was lower in price on both a weight and an area basis. In addition it could be rolled thinner than tin and still retain adequate working strength. Methods for producing an endless variety of novelty surface effects further fostered its use.

With the defense program in full sway and the abnormally heavy aluminum requirements for aircraft construction, its usage for foil, except to a very limited degree, appears to be deferred until after the war. Even the output of the several new aluminum producing plants will be directed largely towards aircraft production, so no relief can be expected from those sources.

Ersatz, along with blitzkrieg and many other words, has grown out of this war and has found its way into our own vocabulary. The problem is how fully ersatz or substitute products will be able to meet the use requirements fulfilled by the original products. Because the original materials are no longer available moderate increases in prices are to be expected. In examining these substitute products it is found that a metallic luster requires a certain portion of the original metal though not nearly so much as would be necessary for a former all-metal foil. It is quite possible to manufacture a sheet made from a cellulose derivative, such as cellulose acetate or ethyl cellulose carrying as little as 5 per cent or less aluminum pigment, and obtain a film of one-thousandth or less with complete hiding power. The film is glossy on both faces and possesses the scintillating appearance of a lacquer containing an aluminum pigment. This type of sheeting is also available in the rubber derivative composition films.

While the product closely simulates metallic foils in appearance, operates successfully on standard packaging machinery and possesses the heat-sealing characteristics of regenerated cellulose and cellulose derivative sheeting, its moisture transmissibility value is not as favorable as metal foil. The rubber derivative type is the nearest approach though it has shortcomings when compared with the metallic foils.

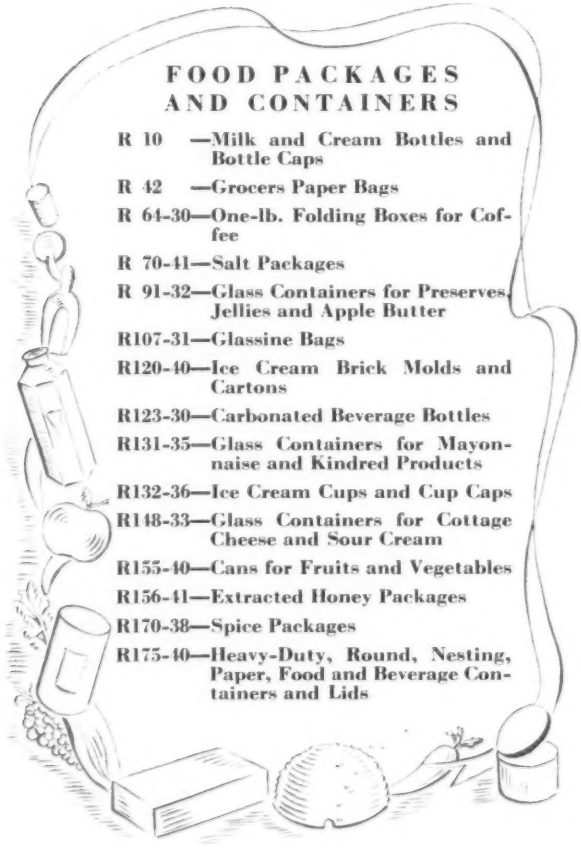
Another substitute which appeared a few years ago was that produced by the process of electroplating a thin metallic deposit on one or both faces of the cellulose type of transparent sheeting. This most interesting material possesses a beautiful mirror finish on both surfaces. It can be used on standard packaging machinery, but is not available with heat-sealing properties. Again, its moisture transmissibility is far from that which is required for food packaging. The method of manufacture is by its very nature a slow as well as a costly one and production is at present limited.

Simplification as a defense aid

by W. E. BRAITHWAITE*

Against the dark background of losses chargeable to the so-called World War No. 1, there stood out the very striking benefits to commerce resulting from the efforts of the conservation division of the War Industries Board to concentrate production on few varieties of the same product.

The industrial depression which followed the war, however, favored a rapid return to the former uneconomic conditions of excess variety in types of manufactured products. Faced with this fact, many leaders in industry felt that the advantages of simplification should be investigated. It became increasingly evident to them that some agency, national in scope, could perform a service by crystallizing the feeling into action.


FOOD PACKAGES AND CONTAINERS
R 10 —Milk and Cream Bottles and Bottle Caps
R 42 —Grocers Paper Bags
R 64-30—One-lb. Folding Boxes for Coffee
R 70-41—Salt Packages
R 91-32—Glass Containers for Preserves, Jellies and Apple Butter
R107-31—Glassine Bags
R120-40—Ice Cream Brick Molds and Cartons
R123-30—Carbonated Beverage Bottles
R131-35—Glass Containers for Mayonnaise and Kindred Products
R132-36—Ice Cream Cups and Cup Caps
R148-33—Glass Containers for Cottage Cheese and Sour Cream
R155-40—Cans for Fruits and Vegetables
R156-41—Extracted Honey Packages
R170-38—Spice Packages
R175-40—Heavy-Duty, Round, Nesting, Paper, Food and Beverage Containers and Lids

Early in 1921 a committee of the Federated American Engineering Societies was appointed to study existing conditions and to make constructive suggestions as to possible remedies. In the latter part of the same year this committee published its report, "Waste in Industry." This report covered an investigation of six major industries and revealed the rather startling information that there was an average waste of 49 per cent in American business. It was discovered that much of this waste was caused by excessive variety or diversification in basic products and it was pointed out in this report that a great variety of sizes, styles, types, designs and patterns of the most commonplace articles were being placed on the market by manufacturers who were required to have special equipment and skill to produce these endless varieties. Merchants accumulated stocks on which there was a very slow turnover because of the excessive variety and lack of interchangeability of component parts. Because of this situation, business leaders indicated a desire for a cooperative program to establish simplified lists of recommended standards for various manufactured products.

At the request of some of these business leaders there was set up in the National Bureau of Standards of the U. S. Department of Commerce, a division to act as a neutral agency or clearing house through which producers, distributors and consumers might conduct surveys, hold conferences and develop simplified practice recommendations that would be of benefit to all concerned. This agency, which is known as the Division of Simplified Practice, was established in 1921.

It is interesting to reflect upon the fact that one of the first conferences held under the cooperative procedure of the Division was the meeting on the simplification of food containers, which convened in January, 1923, attended by more than one hundred representatives of manufacturers, distributors and users of food containers, also food packers and distributors of food products. Since that time there has developed a widespread and systematic effort to simplify sizes and types of containers and packages and a number of industries have sought the cooperation of the Division in working

* Assistant Chief Business Specialist, National Bureau of Standards, U. S. Department of Commerce, Washington, D. C.

out their container and packaging problems through the expedients of simplification and standardization.

In cooperation with the manufacturers of containers and packers of food products as well as the distributors and consumers, these various Simplified Practice Recommendations for food containers and packages have been developed by the industries concerned and promulgated under the cooperative procedure of the Division of Simplified Practice.

Among the Simplified Practice Recommendations which have been promulgated for containers are several for shipping containers, as follows:

SHIPPING CONTAINERS

R 20-28—Steel Barrels and Drums
R135-32—Wooden Butter Tubs
R146-38—Corrugated and Solid Fibre Boxes for Canned Fruits and Vegetables
R164-36—Tinned-Steel Ice Cream Cans
R171-38—Wooden Boxes for Canned Fruits and Vegetables

In addition to the recommendations already mentioned, Simplified Practice Recommendations have been adopted for the following containers used by the department and specialty stores:

PAPER AND FIBRE CONTAINERS

R126-41—Set-up Paper Boxes
R127-41—Folding Paper Boxes
R128-41—Corrugated Fibre Boxes
R129-41—Notion and Millinery Paper Bags

In order that the reader may have some idea of just how a Simplified Practice Recommendation is developed by the groups concerned and promulgated under the cooperative procedure of the Division of Simplified Practice, historical data concerning these four Simplified Practice Recommendations will be helpful.

In 1929, the Committee on Simplification and Standardization of Wrapping and Packing Supplies of the National Retail Dry Goods Assn. requested the Division of Simplified Practice to assist in collecting data on methods and materials used by department and specialty stores in the wrapping and packing of merchandise for delivery to customers.

A group of stores located in different parts of the country and representing an aggregate sales volume of nearly $600,000,000 a year was selected for the study to cover a wide range of local conditions and requirements. In addition to specialty dry goods stores and large and small department stores, there was included one large organization doing an extensive mail-order business. The survey covered methods and kind of supplies used for both ordinary and gift wrapping for 41 selected lines of merchandise. As a result of the committee's work in the simplification of sizes of wrapping and packing supplies, there were prepared tentative simplified lists of sizes for four types of containers for use in packing various commodities for local delivery or shipment. They were submitted for the consideration of a general conference of all interests and subsequently approved by a large list of stores as well as the manufacturers.

In January, 1938, the Standing Committee in charge of these Simplified Practice Recommendations, in co-

MISCELLANEOUS PACKAGES
R 41-40—Agricultural Insecticide and Fungicide Packages
R 60-30—Packaging of Carriage, Machine and Lag Bolts
R 65-31—Packaging of Overhead-Material for Electric Railways
R 69 —Packaging of Razor Blades
R145-33—Packaging of Electric Railway Motor and Controller Parts
R161-35—Packaging of Automotive Engine Parts for Buses
R162-35—Packaging of Electric Railway Air Brake Parts

OTHER WRAPPING AND PACKING SUPPLIES
R 92-38—Hard Fibre Twine and Lath Yarn
R 93-39—Paper Shipping Tags
R110-29—Soft Fibre (jute) Twine
R114-30—No. 1 Kraft Paper Sealing Tape
R124-31—Polished Cotton Twine
R136-32—Flax and Hemp Twine
R177-41—Single-faced Corrugated Board Rolls

operation with Committees appointed by the National Retail Dry Goods Assn. decided, in the light of changing packaging practices, to revise these four recommendations. Changes from year to year in sizes and types of merchandise and in folding methods, etc., tended to make obsolete certain sizes and types of containers formerly in wide use. As a consequence, demand for special sizes showed a constant increase, a practice resulting in an upward trend in (*Continued on page 110*)

DESIGN HISTORIES

Shirt Tales

Guests of The Mayflower Hotel, Washington, D. C., now receive their shirts from the hotel laundry wrapped in cellophane and decorated with an attractive four-color advertisement drawing attention to one of the hotel's services which appeals especially to men. As the guest unwraps his clean shirt, he is reminded of the Mayflower Men's Bar, the Cocktail Lounge, the Barber Shop or the News Stand.

The ads, measuring 4 by 6 in., consist of a sketch accompanied by a few lines of copy describing each service.

The new wrapping is accomplished without additional effort on the part of the laundry operators. The wrappings are alternated as they are packed. The sketch on the cellophane sheet is so placed that it naturally falls into correct position on the front of the shirt. Thus, there is practically no difference in the present wrapping process from that required by the blank cellophane sheets. The inks used are of vivid tones—magenta, yellow, orange, apple-green—in order to stand out against a colored as well as a white shirt. The sketches are printed in reverse on the under side of the wrapping so that the ink will not roughen the smooth texture of the cellophane.

Credit: Printing by The Cuneo Press, Inc.

Lubricating Gun

A right-on-the-spot, clean, positive means of high-pressure lubrication is provided by this gun of the Alemite Division of the Stewart-Warner Corp. An interesting departure from the conventional type is the secondary chamber inside the metal container. This consists of an oil-tight flexible bag of rubber-hydrochloride sheeting which holds the grease and collapses in accordion fashion as the pumped-out lubricant creates a vacuum within the bag. The bag is leak-proof, which means freedom from dripping and general messiness associated with oil cans. It is also resistant to oil decay or rot, withstands rough handling and collapses readily at atmospheric pressure. Two parts comprise the gun: a strong metal container and a nozzle similar in action to that used in push-type hand guns. Although the piston chamber has a very small stroke, it is capable of delivering easily 2,000 lbs. pressure. A special spring pushes out the nozzle at each stroke. Regardless of the period of time between usage, the gun is not subject to leakage.

This No. 1 size container holds 4 oz. of solidified oil. Its over-all height is $6\frac{1}{2}$ in. with a base diameter of $1\frac{3}{4}$ in. It is not refillable at point of use.

Credit: Flexible bag by Neostyle, Inc. Container by American Can Co. Printing of label by Frank J. Shuman Co.

Tea Bags

A conventionalized crown against a purple and gold background appropriately emphasizes the new brand name, Royal Guest, which the Independent Grocers' Alliance Distributors, Inc., is using for its tea bags. An outer wrapping of cellophane protects both the tea and the box. The bags are made of a fibrous paper instead of gauze and are packed in quantities of 10, 25 and 50.

Before the new package was adopted, the company also had a carton which held 15 tea bags, but it was found to lag in sales, so that size was eliminated from the present group. Stacked on the market shelves the packages present a bright flash of color. Smaller product and brand identification are in keeping with the current super-market trend towards packaging of small items for close-up views of an individual carton rather than for catching the customer's eye from a distant shelf. These cartons are at home on shelves at eye-level or lower and in those stores where self-service allows free handling of merchandise. The housewife not only picks up and holds these Royal Guest packages easily, but she also sees the pattern and type matter at close range without distortion.

Credit: Cartons by National Urn Bag Co., Inc. Paper by Aldine Paper Co.

Weather Today

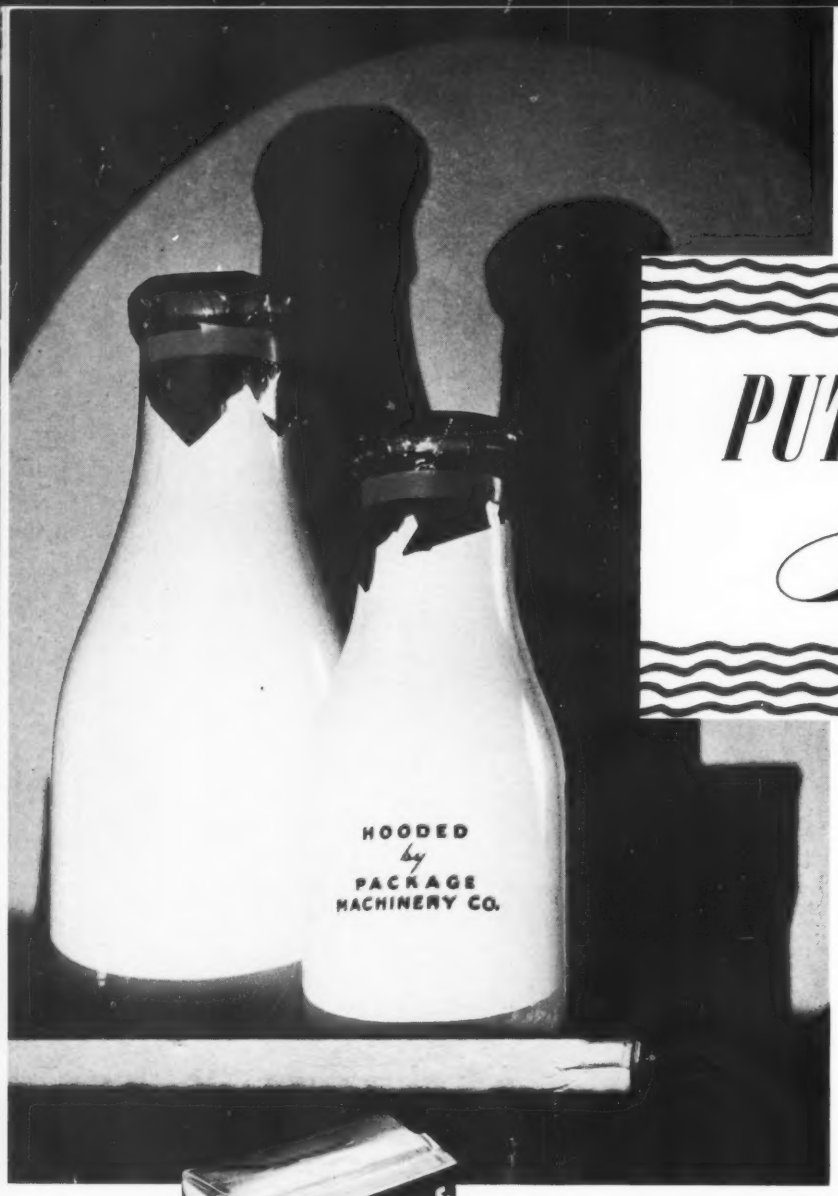
As clean-cut as the product they enclose are the boxes for the Precision Products Co.'s "Easy-to-See" thermometers. These temperature recorders, made in models for both indoor and outdoor use, are individually packaged in small square set-up boxes. They show a simple, direct approach to the problem of correct packaging for small utility articles where packaging costs are an important consideration in relation to the margin of profit. Their compactness lends itself to easy storing in warehouses and on store shelves.

Two price range differences in product are indicated by slight variations in the box make-up. The more expensive models have silver-paper covered bases and blue paper tops with cardboard platform arrangement to hold the merchandise in place. The less expensive have uncovered scored and stayed bases with paste-on instruction slips and silver-paper covered lids.

The clear blue and silver colors and functional design reflect the simplicity of pattern of the precision instruments themselves. The box tops bear trade and product identification and slogan as well as a conventionalized line sketch of the thermometer. All this fits neatly on the top surface without giving any impression of crowding.

Credit: Boxes by Cambridge Paper Box Co.

PUTTING ON THE *Heat*



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1. The tape on these milk bottles is used with a piece of moisture-proof cellophane to form an overcap. A simple code system may be worked out with the cellophane and tape by using different colors to designate type of milk product or days of week. **2.** Another use of the tape is to seal coffee bags securely and compactly. In this instance the tape is silver color to harmonize with the package for good eye appeal. **3.** Still another use is found in closing a cellophane overwrap on a cleaning powder package for quick closure.

2

3

The brawny stable hand lifted the half-ton horse in his arms and jogged down the track. The visitor's eyes bulged. The other stable boys glanced up, went on with their work. "You see," volunteered one as the visitor pointed, gasped, tried to speak, "we saw him pick up that colt the morning it was born and run a hundred yards with it. He's done it every morning since—rain or shine."

We didn't see it happen; we can't swear it's true. We tell the story to illustrate a point about progress in packaging. There is progress, but very often those who watch it each day come to take it for granted. Heat-seal packaging offers a fine example of this marvelous today, matter-of-fact tomorrow spirit.

Barring the time-honored use of sealing wax, the first commercial use of heat as a means of more efficient packaging was for sealing wax paper on bread, baked goods and similar packages. The advent of cellophane capable of being sealed by heat marked a second milestone. Widespread expansion in the use of heat for package sealing followed. Package machine manufacturers aided progress with special equipment of more and more varied design. They developed machines to fit highly individualized needs. They also perfected small, relatively inexpensive units attachable to existing machinery to adapt it for heat-sealing.

Gradual improvements continued. Then a few years ago, came a new and probably the most spectacular development: the use of regular labeling papers coated with a heat-sealing adhesive. Papers coated with this adhesive have proved to have five outstanding advantages, leading to considerable improvement in package appearance, packaging speed, packaging economy.

1. *Adhesion to difficult surfaces.* Heat-seal papers can be applied to waxed paper, carbon paper, cellophane, glass and similar hard-to-stick-to surfaces. Special adhesives have been and are being developed to meet special requirements.

2. *Speedy adhesion.* Heat-seal labels bond quickly to any surface to which they are applied, an important quality in modern high-speed packaging machinery.

3. *Strong adhesion.* A heat-seal bond on any of the surfaces for which it is designed will really stick.

4. *Non-toxicity.* A special heat-seal adhesive has been developed for use on food product labels. This adhesive is more than just non-toxic; it is absolutely tasteless and odorless.

5. *Waterproof.* Heat-seal papers varnished or lacquered after printing are not affected by moisture or even the actual presence of water, either before or after their application.

Even an arm-chair packaging expert could dope out a wide variety of uses for a material with the foregoing characteristics. However, we need not theorize. Let us look at the actual progress made by a typical manufacturer of packaging accessories.

This firm manufactures heat-seal adhesives, applies them to the base stock, then prints and otherwise converts the stock thus treated into final form for use in packaging machinery. Developments have varied from applying bands on frankfurters to packaging telephone cords. All are interesting. Some are likely to suggest solutions to packaging problems many manufacturers may have. The more thought-provoking heat-seal developments follow.

One of the earliest developments in heat-seal packaging is the milk bottle tape illustrated in Fig. 1. The tape is used with a piece of moisture-proof cellophane to form an overcap, having several advantages over any other type of overcap:

1. Greater attractiveness. The tape, cellophane or both are used in a variety of colors.

2. Only one printing is required. Printing on the inner cap is, of course, visible through the cellophane whether a clear or colored variety is used.

3. Can be used as a code. Different colors of cellophane and/or tape can be used to signify either different types of milk products or different days of the week, or both as may be desired.

4. Greater security. The tape seals securely not

4. Bread end labels heat-sealed on waxed paper.

5. End labels are used also on cake wraps.

only where it is overlapped on itself, but also forms a complete circular bond to the cellophane.

Other uses for this kind of tape are to seal coffee bags, to close a cellophane wrap around a can of cleaning powder and to band standard lengths of telephone wire. The coffee is Chase & Sanborn's (Fig. 2). Printed in a silver color, the tape harmonizes with the appearance of the package, helps create maximum eye-and-buy appeal as well as assuring airtight closure. Heat-seal tape is used to close the cellophane overwrap on Bon Ami Cleaning Powder (Fig. 3) for strictly utilitarian reasons. The fullness of the cellophane at the bottom of the package was hard to gather and seal, until heat-seal tape was adopted. Now a quick positive closure is certain with this tape.

The Western Electric Co., users of heat-seal tape for packaging standard lengths of telephone cord, wanted to simplify storage, make inventory easier, have the name and length of each wire directly on each piece. They adopted a heat-seal band because of the bonding strength of heat-seal and worked out their own means for automatic application.

Almost everyone has seen the new end labels being used on bread. They represent another use for heat-seal—usage on waxed papers. General Baking Co.'s Bond Bread (Fig. 4) illustrates this use. General Baking likes the idea for several reasons: rewraps are reduced; the end labels hold tight even in humid weather. Also, the end labels make Bond Bread instantly recognizable when packed end out on a crowded shelf with competing brands. A labeling unit attached to the wrapping machine applies Dennison Heat-Seal Labels quickly and permanently. A variation of that application is for cakes and other baked goods. The labels used by Friend Bros., Inc., of Melrose, Mass., on cellophane-wrapped baked goods are shown in Fig. 5.

Another unique heat-seal application was worked out for the Autographic Register Co., Hoboken, N. J. Autographic manufactures Econ-O-Type Discs made of carbon paper for use in a special typewriter attachment they produce (Fig. 6). Labels were wanted on the carbon side of the disks for trade name identification, as well as to eliminate smudging of fingers during handling. Ordinary adhesives were found unsatisfactory. Good results, however, were obtained from new types of heat-seal labels. They could be applied so much faster that the production rate went up 25 per cent.

LeBlond Machine Tool Co., Cincinnati, also uses heat-sealing to protect valuable blueprint designs kept in large files and referred to constantly. Ordinary gumming would not adhere to the special blueprint stock; special solutions might affect the blueprints. A specially designed corner protector gummed with heat-seal adhesive worked out successfully. An additional design was developed to reinforce the edges of the prints where they are folded.

A final, though by no means minor, use for heat-sealing is shown by the frankfurter bands illustrated in Fig. 7. Millions upon millions of these bands were used within the past year by packers ranging from the largest to the smallest all over the United States. A survey showed they found these bands profitable to use because the identification achieved gave them such benefits as: (1) Preventing substitution at the point of sale. (2) Building prestige and good will through advertising both product and brand name. (3) Providing a sound basis for other advertising and sales promotion. (4) Making their (*Continued on page 112*)

Heat-sealing's great adaptability is indicated by the varied uses to which it has been applied. **6.** Heat-seal labels increased production of Econ-O-Type Discs, a special typewriter attachment, 25 per cent. **7.** Millions and millions of frankfurters are brand identified with heat-seal bands.

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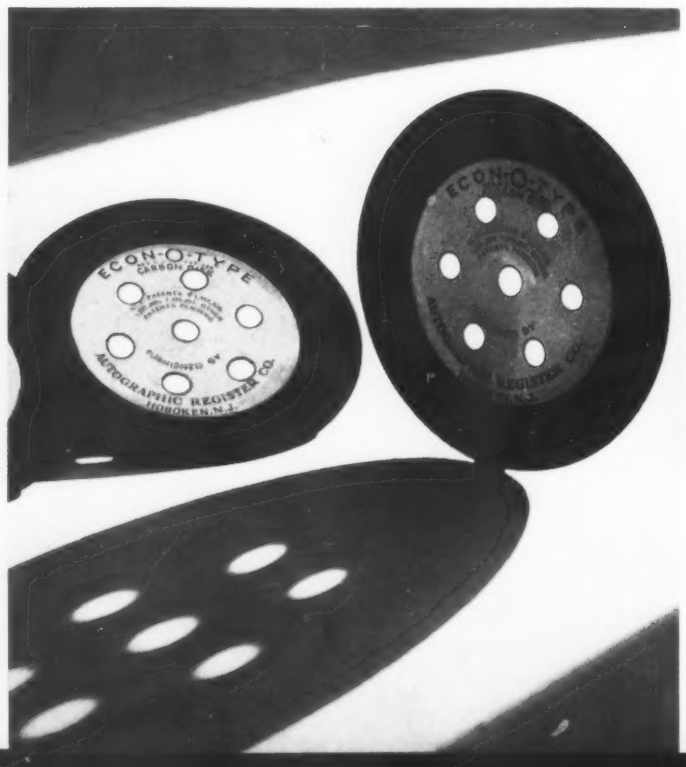

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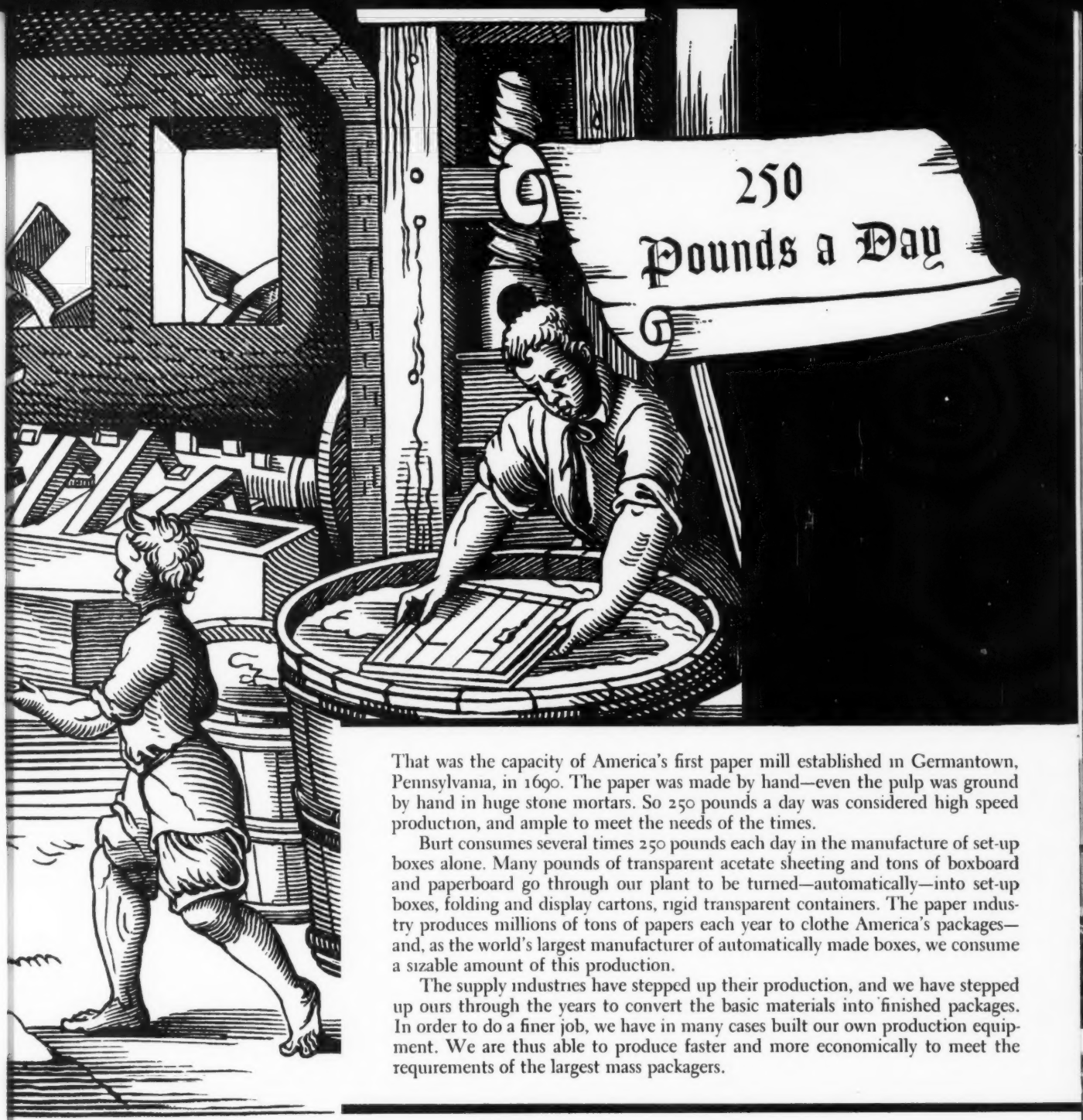

That was the capacity of America's first paper mill established in Germantown, Pennsylvania, in 1690. The paper was made by hand—even the pulp was ground by hand in huge stone mortars. So 250 pounds a day was considered high speed production, and ample to meet the needs of the times.

Burt consumes several times 250 pounds each day in the manufacture of set-up boxes alone. Many pounds of transparent acetate sheeting and tons of boxboard and paperboard go through our plant to be turned—automatically—into set-up boxes, folding and display cartons, rigid transparent containers. The paper industry produces millions of tons of papers each year to clothe America's packages—and, as the world's largest manufacturer of automatically made boxes, we consume a sizable amount of this production.

The supply industries have stepped up their production, and we have stepped up ours through the years to convert the basic materials into finished packages. In order to do a finer job, we have in many cases built our own production equipment. We are thus able to produce faster and more economically to meet the requirements of the largest mass packagers.

F. N. BURT COMPANY, INC.

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630 Fifth Avenue
Room 1461

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P. O. Box 6308
W. Market St. Sta.

NEW ENGLAND
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491 Main Street
Cambridge, Mass.

ST. LOUIS
M. P. Yates
315 Chestnut St.
Room 125

ATLANTA, GEORGIA
Mr. W. B. Branch
Candler Building

CHICAGO
919 N. Michigan Ave.
Room 2212

CLEVELAND
W. G. Hazen
P. O. Box 2445
E. Cleveland, Ohio

CINCINNATI
419 W. Fifth St.
Telephone: MAin 0367

NEW ORLEANS
Sydney S. Levy
509 Audubon Bldg.

MEMPHIS
W. F. Shepherd
268 Madison Ave.

MINNEAPOLIS
J. E. Moor
3329 Dupont Ave. South

KANSAS CITY
Elmer J. Schwartz
1135 East 66th St.

A. G. Spilker
P. O. Box 126
DANVILLE, CALIF.
(near San Francisco)
Danville 27

CANADIAN DIVISION
Dominion Paper Box Co., Ltd.
469-483 King Street, West
Toronto 2, Canada

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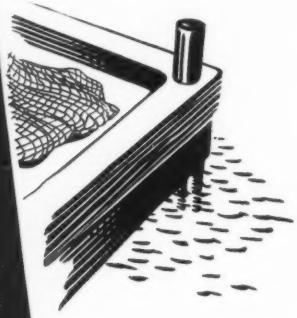

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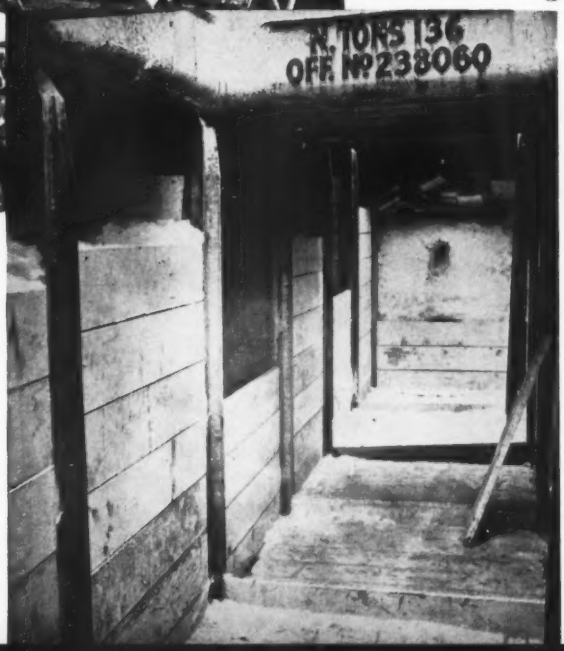

Fresh from Old Ocean's Floor

Lovers of fine foods make pilgrimages to the shrines where their favorite dishes are obtainable. Boston for many years has been a Mecca for seafood gourmets and those in the know have always said, "You can't get the real seafood taste anywhere except on the Atlantic seaboard—especially in Boston."

High priced restaurants in land-locked cities have often made it possible to enjoy this ocean-fresh flavor, but at costs far beyond the average budget. Even at near-prohibitive prices the delicacies of the deep have sometimes been of dubious age and doubtful flavor. Now science has contrived to carry that flavor far inland at prices Mr. and Mrs. Everyman can afford.

The average landlubber, who thinks of fishing in terms of sport, knows that if his own catch were put on a cost accounting basis it would net him about $80 a pound. The scale on which commercial fishing is conducted is of never-ending interest to him. He sees a moderate size trawler come in from the fishing banks with 175,000 lbs. of red fish. One of the larger trawlers, he is told, has a capacity of 366,000 lbs.—a lot of fish in any port. The average landsman always expresses his curiosity about where the fish come from and how they are caught before he is content to watch the packaging.

The newest modern trawlers are 147 ft. in length with a gross displacement of 350 tons. These vessels would be just as amazing to the old-time fisherman as they are to the visitor from the middle states. Today only a small proportion of the catch is caught by the memorable hook-and-line method, which is largely confined to the Gloucester vessels. The port captain, by the way, points out that the fascinating film, "Captains Courageous," was a very accurate portrayal of the Gloucester fishing method.

People who are allergic to choppy waves should not go out on a trawler. The trawler is extremely seaworthy, but it is not built for passenger comfort. It lies low in the water so that the bulging nets may be more easily hauled in. Since the most modern trawler can operate in any weather, a constant supply of fish is maintained even when smaller fishing craft cannot put out. The fishermen keep their footing on the slippery decks with marvelous ease, but even in mild weather the landsman would want to keep a firm grip

1. An outward bound trawler. Indifferent to weather, the vessels plow through calm or rough seas to the fishing banks several hundred miles northeast of Boston. **2.** Bulging nets are swung easily over the trawler's low sides. **3.** These bins in the hold are filled with fish carefully packed in powdered ice. One of the trawlers has a capacity of 366,000 lbs.—a lot of fish in any man's language. **4.** Looking down on the Boston Fish Pier, said to be the largest in the world. All fish entering the port must be auctioned off through the "Exchange," and the kind and quantity of every catch are entered on the "hail-board." **5.** Scene on the pier showing the covered conveyors which are used to unload the fish. Much of the catch, however, is unloaded by longshoremen, otherwise known as "lumpers."

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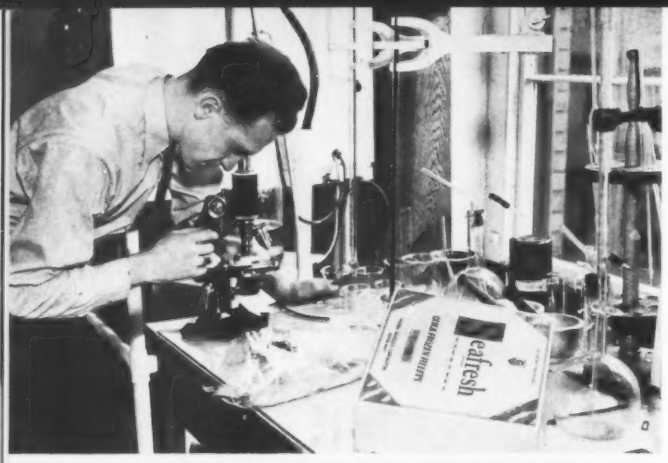
PHOTO, COURTESY FAIRCHILD AERIAL SURVEYS, INC.



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on the rail and he probably would want to go home very quietly when giant waves wash the deck and spray turns to ice on the rigging.

The fishing banks lie several hundred miles northeast of Boston. As the captain and crew work on shares, they are anxious to get a maximum load in the shortest possible time. Through the miracle of the radio telephone, the Boston office keeps in constant touch with the trawlers. Office and ships exchange information assuring a steady flow of fresh fish into the plant. In the old days the fishermen put out in open dories from the mother vessel. Today the crew does not leave the trawler. With the sturdy vessel moving at a speed of three or four miles per hour over the fishing banks, enormous nets are dragged over the ocean floor capturing thousands of pounds of cod, haddock, red fish and other varieties known as "ground fish." After being hauled up on deck, the fish are cleaned and carefully packed in powdered ice in bins in the hold of the deep-draught vessel. These bins are several tiers high and heavy plank floors spaced at intervals keep the weight of the top load from crushing the fish at the bottom. Some of the newer boats are artificially refrigerated, but ice is the main reliance even on these.

The fishing process continues day and night. Shifts work six hours on and six hours off until the hold is full. Then back to Boston's Fish Pier the vessel goes at top speed. Since the fish pier occupies the equivalent of several city blocks, one can easily believe that it is reputed to be the largest in the world. Lying like the letter "U" with the open end toward land, it has at the outer edge the Boston Fish Exchange, which is operated in a quasi-public manner. Tenants of the fish pier are subject to rigid regulation. All fish entering the port

6. The staff chemist inspects a sample from each lot of fish before packing operations begin. At least one of the companies maintains a laboratory for this purpose. **7.** Filleting. A conveyor belt carries the fish to men who quickly cut off the fillets—the only part of the fish used. **8.** Inspecting the fillets under powerful lights. Any which do not come up to standard are at once thrown aside. **9.** The fillets being weighed preparatory to packing. **10.** They are then wrapped in cellophane and placed in cartons ready to go to the freezing room.

9

10

NOW THEY WHISTLE WHILE THEY SHAVE

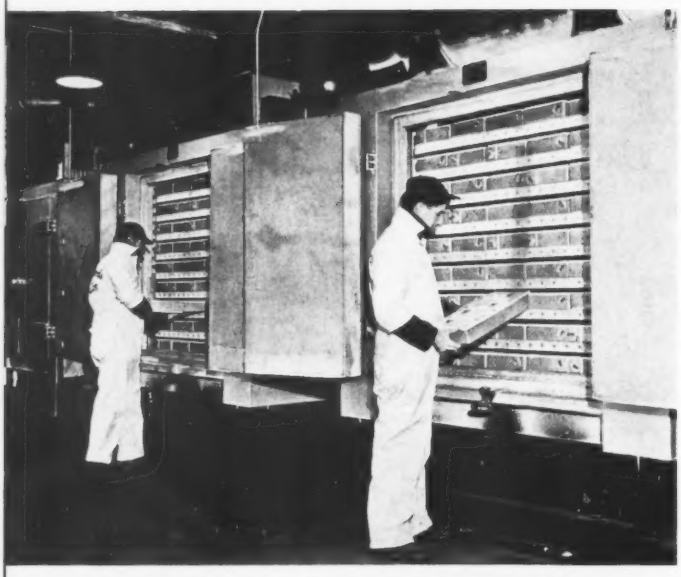
Thanks to ARMSTRONG'S HUMAN RESEARCH!

ARMSTRONG applied Human Research to the design of this new jar for Mennen Brushless Shave, and produced a package that should make Mennen users whistle while they shave!

Human Research found that brushless shave cream packages are handled by men whose fingers are wet and often slippery. Hence this Mennen jar's ridged, easy-to-hold surface with friction spots placed to offer a surer grip. Human Research found, too, that men object to groping into deep jars for cream as the supply gets near its end; so this container is wide and shallow, which eliminates that difficulty. And Human Research already knew that jar caps can't fall down the drain!

If conditions are making you think about a change to glass, let Armstrong's Human Research design a glass package for you that will give your customers the package features they've been looking for. Write Armstrong Cork Company, Glass and Closure Division, 916 Arch Street, Lancaster, Pennsylvania.

ARMSTRONG IS GLASS PACKAGING HEADQUARTERS



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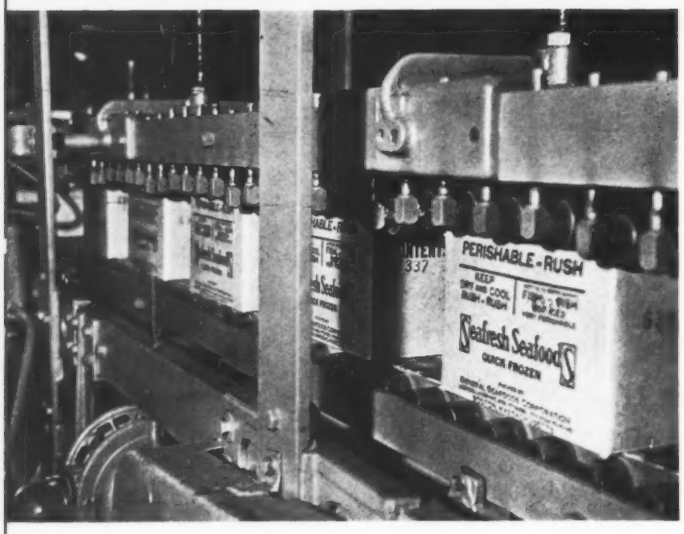

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must be auctioned through "the Exchange" and this acts as a regulator of prices and as a preventive of any possible monopoly. Even though a trawler may be owned by a fish company, its catch is subject to these regulations. The captain reports the kind and quantity of the catch, figures are entered on the "hail board" and buyers and captains in approved board-of-trade manner transact the sale.

The fish are unloaded by canvas cradles and covered conveyors, but much of it by "lumpers"—longshoremen in rubber boots who descend into the trawler's hold with special shovels to fill hoist buckets. At least one of the fish packing companies maintains a laboratory where a sample from each lot of fish brought in is inspected by a staff chemist before the packing operations begin.

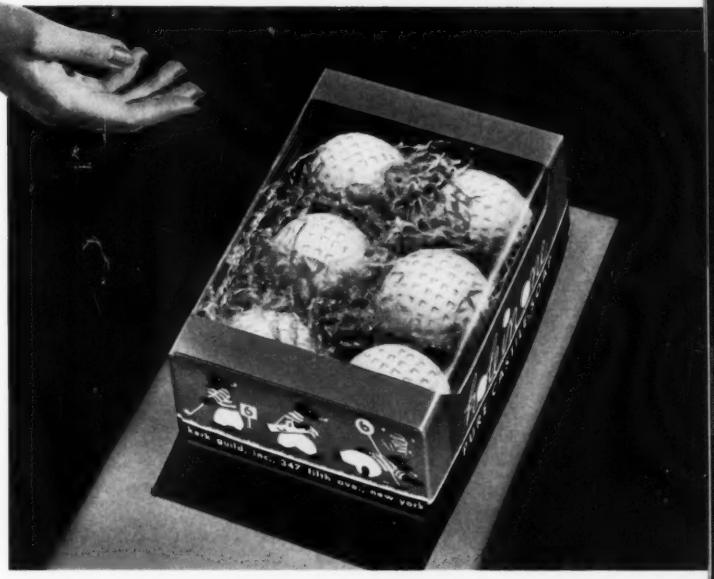
The first step is washing and scaling the fish in the processing room. Here the visitor must watch his step. Streams of water from high-pressure hoses are constantly being played on equipment and floors. This insures a clean and sanitary condition, but it results in floors on which the unwary may experience many a slip. Next, the fish are carried on an endless conveyor belt to men with deft fingers and gleaming knives who cut off the fillets at an amazing speed and with remarkable dexterity. Then keen-eyed inspectors, viewing the fillets under powerful lights, throw out any that do not come up to standard. The visitor may ask, "What's the matter with *that* one?" and be told, "Nothing. It just won't *look* good to the housewife, that's all."

Inspection over, fillets are weighed and wrapped in cellophane and placed in cartons to go to the freezing room. Here multiplate frosters apply the quick-freezing method. For adequate freezing this method requires only about one hour per inch of package thickness. Thus, a carton containing several pounds of fillets may be, for example, $2^1/_4$ in. thick. The lot of cartons will be ready to take out of the multiplate units in about

13

11. Cartons of fillets in the quick-freezing units, called multiplate frosters. Adequate freezing requires about an hour for each inch of the package thickness. **12.** A line of shipping containers en route from the freezing units to storage rooms. **13.** Men in polar costumes —they need them in that arctic region—store the containers to await shipment. The fillets must be kept under constant refrigeration until they are ready to be popped on to the broiler or otherwise prepared for the family meal. When defrosted, these quick-frozen fillets lose none of their food value, texture or flavor, but retain all the flavorsome qualities of freshly caught fish.

Packages that customers reach for—



Six soap golf balls, nestling in green cellulose grass, under a window of Clear Transparent *Eastman Acetate Sheet*, make a gift item that is hard to resist. PRODUCT: Kerk Guild, Inc., New York, N. Y. PATENTED "LOOKIT" BOX: Flower City Specialty Co., Rochester, N. Y.

TO WIN THE CLOSE-UP that closes the sale, a package must (*1*) *protect* the product so completely that top-of-the-counter display is assured . . . and (*2*) "*spotlight*" that product so clearly and appealingly that customers reach for it on sight.

One material—*Eastman Acetate Sheet*—does both jobs supremely well.

Clear Transparent *Eastman Acetate Sheet* can be readily fashioned into rigid, sturdy containers that fully protect the contents . . . yet show every detail to perfection. Where limited visibility is desirable, it can be readily combined with paper, cardboard, wood, molded- and sheet-plastics. And if you seek unusual decorative effects, you will find the as yet little-explored possibilities of the Matte Translucent and the Colored Translucent *Eastman Acetate Sheet* worthy of careful consideration.

For samples of *Eastman Acetate Sheet* of the type, thickness, and dimensions you need to try it, or for the names of fabricators near you, write to . . . Eastman Kodak Company, *Chemical Sales Division*, Rochester, N. Y.

• • •

Specifications and Fabrication Data

Eastman Acetate Sheet is available in rolls up to 40″ in width and any convenient length, and in stock- and cut-to-size sheets. *Clear Transparent* type is furnished in thicknesses up to .020″; *Matte Translucent* type (matte surface one side) in thicknesses .003″ to .010″, *Colored Translucent* type (pigment coated one side) in thicknesses .003″ and .005″—in a wide range of light-fast pastel shades. All three types of *Eastman Acetate Sheet* can be scored, folded, pleated, fluted, molded, drawn . . . take printing inks without wrinkling . . . can be sewed, crimped, stapled . . . cement with an unyielding bond . . . do not crack or shatter.

• • •

BRANCH OFFICES: *New York*, Eastman Kodak Company, 350 Hudson Street; *Chicago*, Eastman Kodak Company, 1727 Indiana Avenue. PACIFIC COAST DISTRIBUTOR: Wilson & Geo. Meyer & Co.—*San Francisco*, Federal Reserve Bank Building; *Los Angeles*, 2461 Hunter Street; *Seattle*, 1020 So. 4th Avenue. CANADIAN DISTRIBUTOR: Paper Sales Limited—*Toronto*, 11 King Street West; *Montreal*, Sun Life Building.

EASTMAN ACETATE SHEET ATTRACTS • PROTECTS • SELLS

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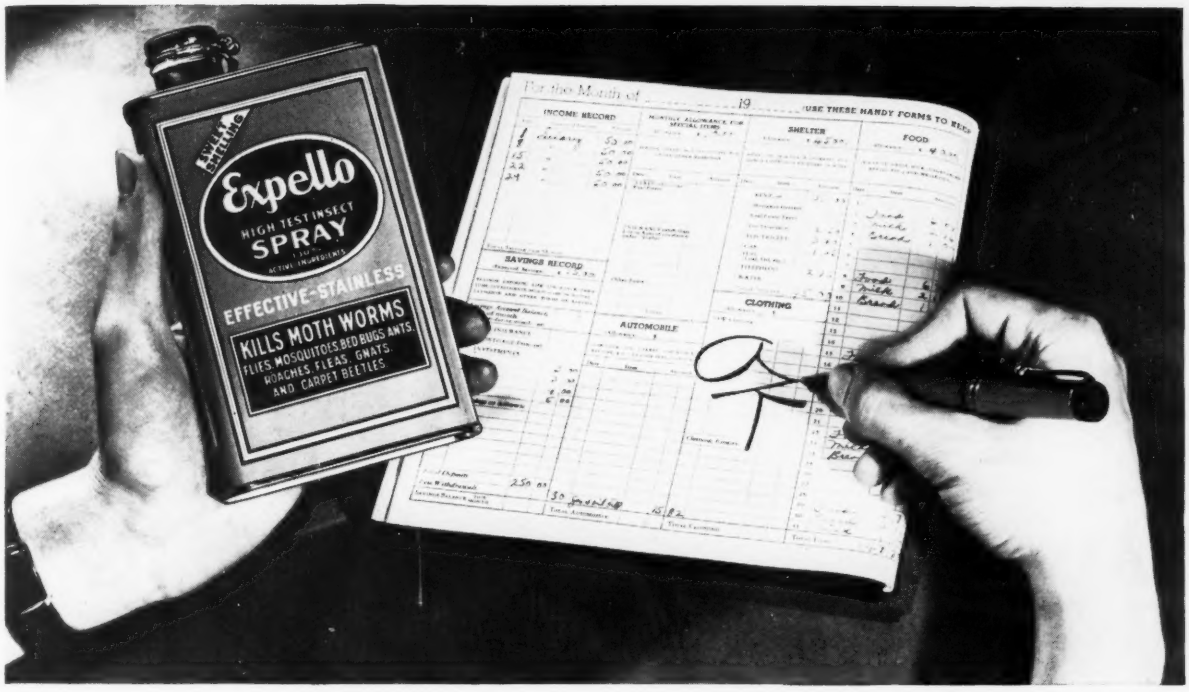
14. Cooking the left-overs for cat food, an interesting by-product. The fillets comprise about a third of the fish, the boneless and most edible part of it. A great deal of experimentation is being done in connection with a number of possible by-products. **15.** Cat food in the process of being canned. **16.** The cans are packed in cases and conveyed to another part of the cannery ready to be shipped.

two hours and 15 minutes. The advantage of *quick*-freezing, it is said, is this: With a product containing a high percentage of water, *slow* freezing permits the formation of large ice crystals. When defrosted, the product loses food value, texture and flavor, because the sharp points of large crystals pierce the cells and permit valuable juices to escape. Quick-freezing, on the other hand, forms very small crystals and the thawing process causes the loss of none of these values.

,Following the freezing the fillets are soon on their way either immediately to market or to temporary storage. From now on until Mrs. Consumer is ready to prepare her lord-and-master's dinner, the fillets must be kept under constant refrigeration. Today's methods and equipment make that relatively simple as compared with the pioneer stages of the industry.

The fillet is boneless and the most delicious and easily edible part of the fish. It is, however, only a third of the fish. What becomes of the other two-thirds? That is one of the industry's problems. The day has not yet arrived when fishermen can utilize their product as fully as the pork packer who, according to tradition, uses everything but the squeal. Chemists are experimenting with these left-over portions of fish for their possible use as fertilizers, adhesives, etc. One interesting by-product now on the market is canned cat food. What is left after fillets are deftly sliced off goes to the "Jack and Jill" cannery in a building located on another section of the pier. Cat lovers are learning that "Jack and Jill" will provide good and entirely satisfying food for all nine of kitty's lives.

Credits: Conveyors by The Alvey-Ferguson Co. Carton sealer by Standard-Knapp Corp. Freezing units by Multiplate Froster. Cellophane by E. I. du Pont de Nemours & Co., Inc. Cartons by Russell Box Co. Shipping containers by Agar Mfg. Corp. Acknowledgement of assistance in gathering information: Alley & Richards Co.



keep the moths out of the budget

Expello is moth insurance in crystal or liquid form! Safe arrival of that "insurance" at the peak of its efficiency is insured by the Crown Cans in which it is packed.

Crown not only produces the containers in which Expello products are sold . . . but makes separate, scientific dispensers such as the Expellometer . . . and dual purpose containers which serve both as container and dispenser for Expello products.

Crown takes particular pride in the success of The Expello Corporation of Dover, N. H. For Crown and Expello have grown up together! Expello's first cans were designed, planned, constructed by Crown . . . and the Crown organization has aided Expello in the development of sales-making containers for its fast-growing line of products.

CROWN CAN COMPANY, PHILADELPHIA, PA., *Division of Crown Cork and Seal Company,* Baltimore • St. Louis • Houston • Madison • Orlando • Fort Wayne • Nebraska City.

INDEPENDENT AND HELPFUL CROWN CAN

Revolutionary
WHICH OF THESE DOBECKMUN SERVICES FITS Your Problem?
Printed "Cellophane" in Rolls and Sheets . . . "Cellophane" Bags and Envelopes, printed and plain, single or duplex . . . "Zip-Tape," machine applied . . . "Zip-Wraps," pre-applied on plain or printed sheets . . . Holiday Bands, Wraps, Bags, in stock or custom design . . . "DOPLEX" Lamination, soil-proof, brilliant, permanent . . . "Cellophane" Pouches, printed or plain . . . Printed "Cellophane" Bread, Cake and Sweet Goods Wrappers.

New Pie Package Suggests Many Food Applications

Machine handling economies . . increased sales . . decreased spoilage . . justify elaborate dress for low-priced, volume product.

3,000 retail outlets supplied daily by 25 1½-ton trucks *for which one specially designed wrapping machine turns out 50% more pie packages than previously!*

- **A 40% increase in sales, due partly to additional "stops"!**
- **A 20% decrease in stales, due *definitely* to speed-up of purchase-acceptance!**
- **Time saved! Labor saved! Costs cut! Increased sales! Materially decreased stales! Greater profits!**

That's the Pellar Pie story. It demonstrates how low-priced, large-volume cake, candy and other products can maintain highest quality ingredients and packaging—profit manufacturer, distributor and retailer—and still satisfy the consumer.

A costlier package? Yes! "But," says Pellar Pie's President Sidney Pellar, "the colorful beauty of our printed 'Cellophane' pie package, plus the ease and economies of machine handling, have definitely increased our volume and our profits."

There are 22 Pellar Pie varieties—each packaged to indicate content: Yellow for lemon, green for apple, blue for blueberry, etc.

Quite a job for designers, artists, plate makers, color blenders and printers—but *Dobeckmun* took it in stride—as we will take your packaging problems if you'll submit them—naturally without obligation whatsoever.

Cellophane
TRADE MARK
THE DU PONT CELLULOSE FILM

*"Cellophane" is a trade mark of E. I. du Pont de Nemours & Co. (Inc.)

The DOBECKMUN Company

3305 Monroe Ave., Cleveland, Ohio Western Plant—Oakland, California

PACKAGE PAGEANT

1 Peas, beans, rice, barley and other dry vegetables are appetizingly presented in cartons with oval windows of cellulose acetate that are arranged in the design to make the contents appear through them as a full cup of soup. The Fisher Bros. Co. chain of food stores use these packages in bright related colors to make their dry grocery department alive and interesting. With transparent windows such as these, choice, uniform quality of whole vegetables and grains is obvious, for the customer can readily see that there is no dust, no broken bits and no slag. Cartons by Sutherland Paper Co. Transparent sheeting by Celluloid Corp.

2 Topple-free ink bottles, quickly distinguishable for brand, are the pint and quart containers and small individual bottles for the Parker Pen Co.'s "Quink" and new "51." Unique in structure and yet very manageable, the large bottles tend to prevent spilling because of their balance. They also allow the user to get a good grip on the container when handling. Design, glass and caps by Armstrong Cork Co.

3 These wedding and engagement ring boxes are made of cellulose acetate molding compound, a plastic with an unlimited color range. The high finish of the plastic gives the surface a crystalline quality in keeping with the character of its contents. The satin lining repeats the white tone of the boxes. Boxes by Standard Novelty Box Co., Inc. Cellulose acetate molding by Tennessee Eastman Corp.

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4 An example of an industry's cooperation with the U. S. Treasury in helping the sale of defense bonds and stamps is this Domino Cigarette package. The entire reverse side is devoted to a message urging the purchase of U. S. Defense Bonds and Stamps. The cigarettes are wrapped in foil and the white paper overwrap is in two colors—black and red. A buff lacquer gives a three-tone effect. Designed by A. C. Ford, Virginia Engraving Co. Foil by Reynolds Metals Co. Paper by Champion Paper & Fibre Co. Printing by J. W. Ferguson & Son.

5 J. L. Wright, Inc., protect their miniature statuary and toy figures, called Lincoln Log Figures, by a double-walled carton. The cushion of air between the two walls absorbs shocks and strains which might damage the toys or other fragile merchandise. The outside carton wrap is lithographed in multicolor, showing panoramic scenes from early American history. Carton and printing by Milprint, Inc.

6 Singly or in mass the handy carry-home, two-color package of three seasoning salts of Durkee Famous Foods has attention-getting value. The much-used seasonings—onion, celery and garlic—done up in a single easy-to-carry unit encourages the housewife to purchase all three. The display is factory-packed with all the salts and requires a minimum of handling by store personnel. Design by Sales Promotion Dept., Durkee Famous Foods. Box by The Acme Folding Box Co.

7 Here's a polish pack for week-end or campus use by Peggy Sage in a king-size case that will tuck into a pocket like an ordinary cigarette case. It is of real cowhide for durability. The long flap which runs through a strap prevents the bottles from slipping out of the case. Three bonbons of sweater yarn are suggested as package accessories and pick up the colors of the two polishes.

8 Schiaparelli's Christmas specialty is a sleeping perfume in three one-dram bottles, miniature replicas of the large-size bottles. These Sleeping Sentinels are of crystal-like molded glass with red glass stoppers. There is a beaded ring in gold color about the bottle and at the base near the handle the gold color is repeated. The whole effect of the flaçon is that of a lighted candle. The bottles rest on a blue satin base under a snuffer cover of transparent sheeting.

9 Sylmar Packing Corp. introduces its chestnut-brown ripe olives in straight-lined glass containers. The fresh quality of the fruit is preserved through vacuum packing. The sparkle of glass enhances the color of the olives and adds appetite appeal to the delicacy. A band label affords added color and carries product, quality and brand identification. The jars are capped with easily removable metal closures. The wide opening makes it easy to get the olives out. Closures by White Cap Co.

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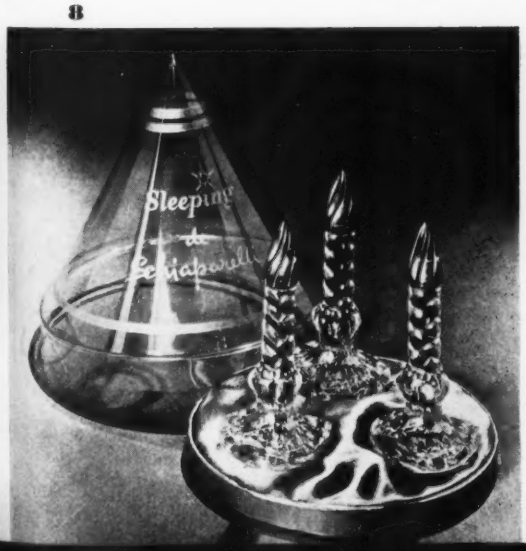
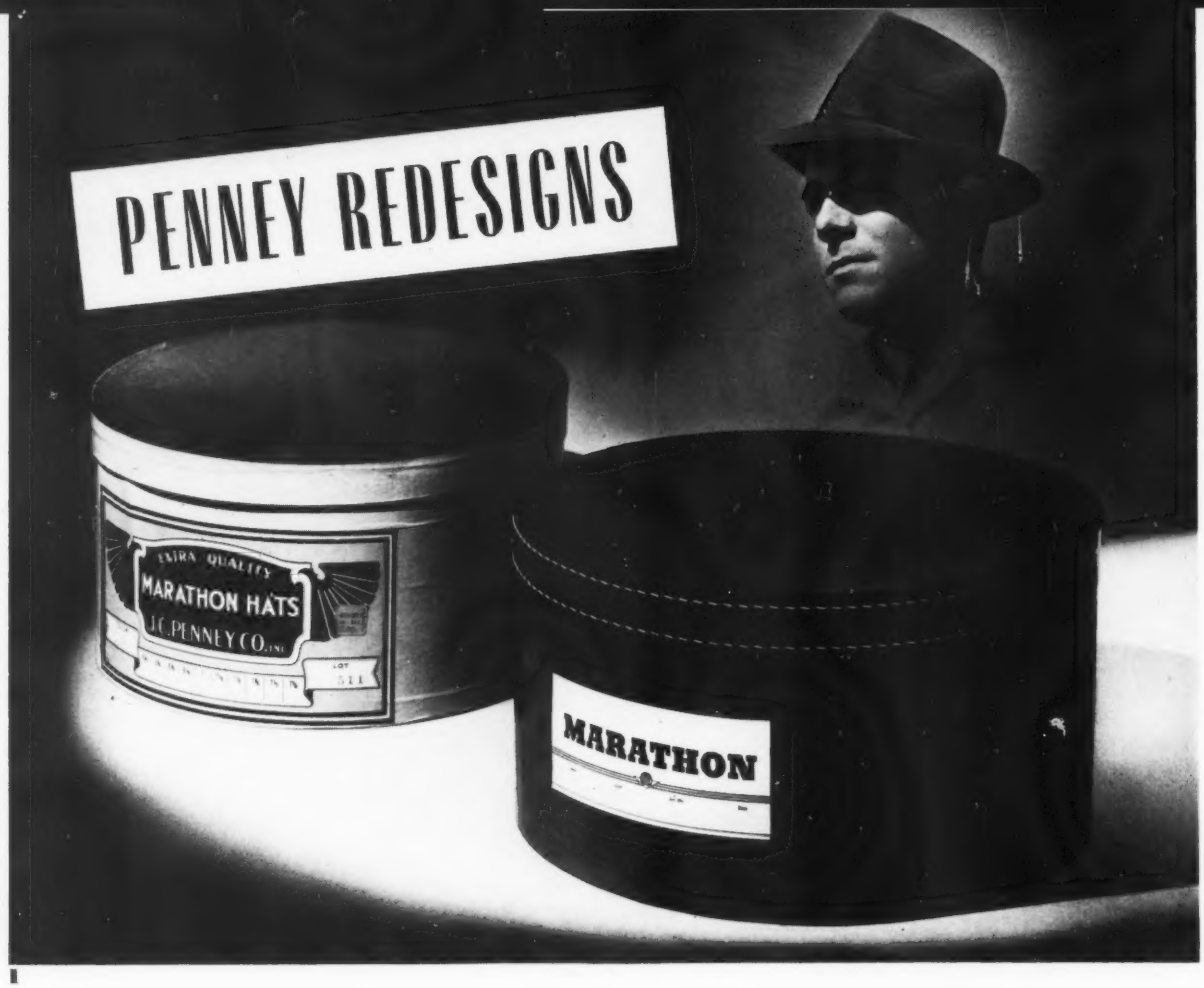


9

PENNEY REDESIGNS



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A penny, even a small fraction of a penny, added or saved on every dollar of merchandise is serious business in chain store operation. Perhaps in no other industry is the cost of packaging watched so carefully, nor does it change so rapidly as in the quick-moving tempo of competitive chain store merchandising.

In view of this, the new family tie-up adopted by the J. C. Penney Co. for the hundreds of millions of labels and boxes it uses annually presents an interesting milestone in chain store activity.

At the time the new Wool Products Labeling Act was set up, it was felt that since many new labels would be required, the company would be wise to review again all of their problems which involved packaging.

Accordingly, suppliers were called into consultation and for a number of months an intensive study was conducted to see what improvements might be made. Visits were made to buying departments, sales forces, stock clerks, etc., and associates were asked to participate in the study and to make their suggestions. In this study, many things were discovered. First, the company found that they could improve their all-over trade identification. Secondly, by further standardization of the arrangement of imprinting on labels, they could speed up stock taking and service to customers considerably. By simple rearrangement of such data as sizes, lot numbers, colors, etc., on labels, much time could be saved in identifying merchandise. The new

2

1. Old and new hat box, showing new box and label in foreground. **2.** Note how space for lot, size, price and color data have been arranged horizontally at bottom of the redesigned label (at right in photo), where they can be read easily and facilitate quicker marking of merchandise.

It's our business to see *both* sides

As any packaging buyer knows, glass and metal are vigorous contenders in the container business.

It's natural for each manufacturer to be prejudiced in favor of his material. Can companies believe in metal—glassmakers, in glass.

But Owens-Illinois is *un*prejudiced, for our business lies in both fields. We are the one organization that makes both glass and metal containers. Our packaging advice is impartial . . . guided by the product *you* want to sell, not by the material we want to sell.

Your product may call for a finely lithographed metal package. Or it may need a sparkling Duraglas container, or a Libbey Safedge packing tumbler. Perhaps you need both glass and metal. Whatever you need, this one organization can supply it, complete with metal or molded closures and shipping cartons.

When you require expert and impartial counsel on packaging problems, call Owens-Illinois.

OWENS-ILLINOIS

Packaging Service

GLASS CONTAINERS • METAL CONTAINERS • CLOSURES • SHIPPING CARTONS

Owens-Illinois Glass Company, Toledo • Owens-Illinois Can Company, Toledo
Libbey Glass Company, Toledo • Owens-Illinois Pacific Coast Company, San Francisco

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arrangement would facilitate quicker marking of merchandise and thus reduce the time required to do it.

In addition, studies were made to see if further savings could be made in printing and paper costs by the use of fewer colors on the labels and by the use of smaller size labels in some instances.

A simple key design was approved which can be used as appropriately on silk hosiery and lingerie as it can on men's overalls. This design takes the form of a simple monogram trade mark with the initials, J.C.P., in a circle within a triangle. Next, all the lot, size, price and color data about the merchandise are arranged horizontally at the bottom of the labels so that they can be read easily and recognized quickly because of their standard positions on all the new labels. In many instances, it was found that paper could be saved by the use of smaller labels. Several multi-color effects were reduced to one- and two-color combinations.

Some of the labels for piece goods and sheeting were further improved by simplification and a tie-up with the new trade mark. Here, too, savings were made by use of fewer colors and smaller size labels.

Informative data on tags for wool sweaters reveal how ample space for this copy was provided while a family design and basic arrangement were achieved for all.

The redesigns mentioned here are only a small part of J. C. Penney's continuous program of package planning, but they give an idea of the importance of the smallest details in mass-market merchandising, where a fraction of a penny and a few minutes saved in one phase of an operation mean not only a cash saving but also thousands of hours in the over-all operation.

Credit: Package research and designs by Michael Mordkin, Jr., of the Rudolph Orthwine Corp. Labels by the latter firm, David Weil & Son and American Tag Co.

3. and **4.** Labels for sheeting and piece goods. New ones are at right in both photos. Note improvements by simplification and tie-up with trade mark above brand name. **5.** Infant department gift label which can be pasted over stock label on regular box to convert it into a gift box. **6.** Tags for wool sweaters show how ample copy space is provided for informative data while family design and basic arrangement is retained for all such labels.

6

SWEATERS
WARMTH - ALL WOOL durable knit, insuring warmth and comfort
LONG WEAR - Constructed scientifically for wear and service
STYLED - To meet today's trend
FIT - Sized to fit correctly
WARMTH SERVICE STYLE FIT
J.C. PENNEY CO. INC.
J.C. PENNEY CO. INC.
Sweaters
ALL WOOL - for warmth
Styled for comfort - sloped shoulders Taped shoulder seams
J C PENNEY CO INC
Cherry Lane
SWEATERS
CHERRY LANE SWEATERS ALWAYS REFLECT
Fashion Right Styles
Fashion Right Colors
All Wool Quality Yarns Correctly Knit
J C PENNEY CO INC
MISS Prep SWEATERS
MISS PREP GIRLS' SWEATERS PRESENT
All Wool quality yarns, expert knitting
J C PENNEY CO INC.

Freedom in Package Design Through Wire Stapling

Placing a small product in a container adapted for open display often requires a high degree of packaging skill and imagination. To do the job well, package designers are aided by a knowledge of all the means and materials which they can command. This is particularly true when it comes to fastening the product to be displayed securely and with sales appeal that will attract attention on the retailer's counter.

In this connection, wire stapling by machines is often the solution of difficult problems. Faster than tacking, gluing, hinging, sewing, hooking, taping, etc.—what is the significance? Stapling machines make displays possible which otherwise would either cost too much or provide inadequate protection for the product.

Among the many wire stapling machines and methods available today, "Bostitching" provides the most scientific approach to any specific fastening requirement. "Bostitching" consists in using the right stapler, stitcher or tacker and the exact size and kind of staple, to get the most efficient fastening results.

Obviously, this involves a very definite engineering service to adapt the right machine to the job. For this reason, the originators of "Bostitching" offer the services of 18 Research Engineers and more than 300 representatives in more than 100 U. S. and Canadian cities and many other countries to bring the numerous advantages of wire stapling into the packaging field.

Now! DISHWASHING MADE EASIER, QUICKER, BETTER
SPRAY or STREAM IN ONE
KITCHEN FAUCET
FLEXIBLE SPRAY HEAD
SPRAY OR STREAM AUTOMATICALLY READY FOR INSTANT USE

Using Bostitch machines instead of slow, costly hand methods, the manufacturers of this faucet spray stapled 800 per hour to the display card—securely, safe from pilfering or rough handling, and at the same time leaving plenty of room for the sales message.

Their task is made easier by the fact that nearly 800 different models of Bostitch machines are available for adaptation. Liberal rental, trade-in and budget plans are also offered by this manufacturer to permit packagers to start with small, inexpensive equipment, when desired, and to progress economically to larger, faster machines with generous allowances for their previous investment.

For more complete information, or help in solving any particular fastening problem in packaging and display, write BOSTITCH, 54 Division Street, East Greenwich, R. I.

Advertisement

BOSTITCHING

FOR SALES APPEAL. This very pretty package in transparent cellulose illustrates the adaptability of the Bostitch method to creative packaging. It's held together by only a few Bostitch staples, invisible from the front, scarcely noticeable from the back.

FOR PROTECTION. For this package, a firm fastening was essential. No threads or elastics to loosen or glued surfaces to come apart. The Sachet Doll is protected from soiling and damage within her transparent walls.

INVISIBLE STEEL

HELPS BRING
YOUR BEST IDEAS TO LIFE

FOR ECONOMY. "Bostitching" is the use of the right stapling, stitching or tacking machine and the right size and kind of staple to get the most efficient fastening results. Often extra fastening operations and costly hours of slow hand labor are eliminated by Bostitch machines obtained on a rental or liberal "pay as you go" basis.

For complete details, contact your local Bostitch representative or write Bostitch, 54 Division Street, East Greenwich, R. I., or Bostitch-Canada Ltd., Montreal.

Send for free folder, "Bostitch Fastens It Better With Wire"—also, new Bag Sealing Folder now ready—Write today!

BOSTITCH
fastens it better with wire—

GIVES YOU ALL THREE
IN ONE FASTENING METHOD

1. SALES APPEAL
2. PROTECTION
3. ECONOMY

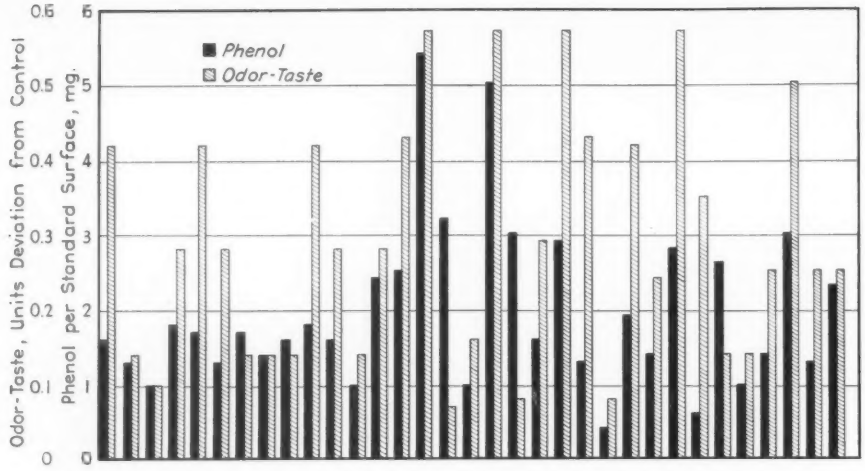


Fig. 1—Comparison of chemical and odor-tests for molded phenolic plastic closures.

Odor-Taste Test of Plastic Closures[1]

by A. HERMAN*

Phenolic plastic closures have come into widespread use for closing liquor and other beverage containers. While many advantages are apparent, closures made from phenolic plastic sometimes tend to produce foreign odors and tastes around the necks of containers and, in some cases, contaminate the main body of the liquor.

Temporarily, the following method to test phenolic plastic closures before use was adopted: A definite number of closures was immersed in a definite amount of whiskey or gin, depending upon the proposed use of the closures, for a standard length of time at constant temperature. The liquor was then removed and the taste of the samples compared with the taste of untreated liquor under conditions eliminating all other variables such as temperature, light, alcohol concentration and personal prejudices or taste-fatigue of the observer.

While a method of this sort is practical in that it tests the material directly for the effect under question, it could not be used as a specification to be presented to a manufacturer of closures. In addition to this, the test consumes too much time. A fast, accurate, chemical test which would evaluate closures in approximately the same order as the taste test was needed.

Closures are made of phenol-formaldehyde plastic, dyes and pigments and wood flour filler. In two-stage resins, hexamethylenetetramine is used in order that the caps may be properly molded. This sometimes results in loosely combined ammonia being left in the cap. The most important contaminant is free phenol and the cresols associated with it. The chemical test devised was centered around the phenol test and the test for presence or absence of ammonia, the other possible contaminants being only of secondary importance.

Several tests are known for quantitatively measuring phenol, falling into two classes: bromination methods and colorimetric methods. In preliminary tests for a bromination method, four caps were extracted with 100 ml. of 100 proof ethyl alcohol at room temperature for one week. An aliquot of the liquor was then taken, the phenol fixed with sodium hydroxide and the solution evaporated to dryness. The sodium phenolate was taken up in water, brominated with a standard bromide-bromate solution and the excess bromine determined with potassium iodide and sodium thiosulfate. The method was not satisfactory because it took too long and the evaporation to remove the ethyl alcohol was accompanied by a loss of phenol.

The colorimetric methods depend upon the reduction of phospho-molybdic or phospho-tungstic salts by phenol in alkaline solution. The blue color developed is compared with that similarly produced in standards containing known amounts of phenol. For these tests, four caps were immersed in 100 ml. of 100 proof alcohol at 45 deg. C. for 16 hrs. An aliquot was treated with the re-agent and compared with the standards.

A series of tests was run using various methods of extraction. The extracts from these were analyzed by the bromination and colorimetric methods.

The results of these tests can be summarized:

1. When water is used for extracting phenol, the bromination method is superior to the colorimetric.
2. The colorimetric methods have three bad defects: (*a*) Interference colors are formed in extracts made at high temperatures; (*b*) the range of accuracy is limited, being confined to small amounts of phenol; and (*c*) it is necessary to employ the bromination method in order to make up accurate phenol standards.
3. Hot water at 75 deg. C. will extract as much or more phenol than 100 proof alcohol at 38 deg. C.

[1] This paper was presented at the Annual Meeting of the American Society for Testing Materials in Chicago, Ill., June 24, 1941, and was published in Modern Plastics, August, 1941. It is published here by permission of that Society.

*Asst. to vice-president, Joseph E. Seagram and Sons, Inc.

UNIFORM HIGH QUALITY

The feature that sells cartons and makes cartons sell products

. . . the magazine publisher specifies the same paper in issue after issue. He knows that readers expect a certain high standard of appearance, and if it is lowered, circulation may suffer.

. . . the government specifies a rigid standard of shell finishes. The reasons for firing accuracy and fast gun handling are evident. The risk of a single failure is tremendous.

. . . the machine manufacturer specifies the limitations of his equipment. By using one material constantly the operation is speeded up with minimum waste. There's no substitute for this adherence to rigid standards.

For high quality, uniform cartons Ridgelo clay coated boxboard sets a proud standard of excellence. In appearance, in surface smoothness, brilliance and ruggedness it paces the field. More than this, it is made uniform, as close to rigid standards as boxboard can be made—all the time, to every customer.

With these features Ridgelo becomes the high-powered sales booster you would expect. It makes every design look its best. The proof is worth having in such an important matter. Ask your boxmaker for printed results on Ridgelo clay coated, or we will gladly send you a sample book.

★ Ridgelo CLAY COATED ★

BOXBOARDS • CARDBOARDS

MADE AT RIDGEFIELD, N. J., BY LOWE PAPER COMPANY

Representatives: E. C. Collins, Baltimore • Bradner Smith and Company and Mac Sim Bar Paper Company, Chicago • H. B. Royce, Detroit
Gordon Murphy and Norman A. Buist, Los Angeles • A. E. Kellogg, St. Louis • Philip Rudolph & Son, Inc., Philadelphia

4. Phenol is lost in the evaporation of alkaline sodium hydroxide solution, thus indicating that a procedure which eliminates ethyl alcohol is desirable.

On the basis of these various tests, it was decided that the bromination test was the most practical. It was also found advisable to remove the liners from the caps before testing, because the tannic acid from the cork interferes slightly with the test. A test for mold or glue odor was set up separately to check the quality of liners used in the caps.

Test procedure

Four short-skirt caps (see Fig. 2) with liners removed are placed in a chemically resistant glass-stoppered bottle and covered with 100 ml. of distilled water at 75 deg. C. In the case of the long-skirt type, four caps with liners removed are placed in a glass-stoppered bottle and covered with 200 ml. of distilled water at 75 deg. C. A strip of moist, red litmus paper is suspended from the inside of the ground-glass joint so that it is in contact with the vapor from the liquid.

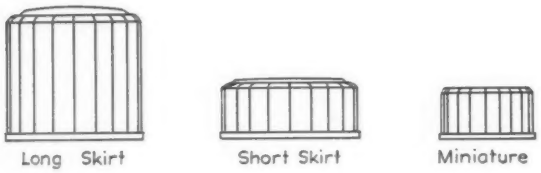


Fig. 2—Various sizes of plastic closures.

The prepared sample is placed in a water bath or oven at 75 ± 1 deg. C. and maintained at that temperature for exactly 4 hrs. The preparation is swirled occasionally to mix the solution and to dislodge air bubbles from the caps. At the same time it is noted whether or not the strip of litmus paper turns blue. A change in the color of the litmus paper indicates the presence of ammonia.

The sample is cooled to room temperature in one-half hour, shaken thoroughly and 25 ml. of the solution pipetted into an iodine flask. Twenty-five milliliters of distilled water are placed in a similar flask for a blank. To each container 10.0 ml. of 0.1 *N* KBr–$KBrO_3$ solution and then 3 ml. of HCl (1:1) are added and the bottles are stoppered quickly. The blank must be run in the same way and at nearly the same time as the unknown samples as is possible.

If a heavy, white precipitate of bromophenol appears upon addition of the HCl, it indicates that phenol content is high. Should bromine color disappear entirely, it is necessary to add 10.0 ml. of additional bromate solution. The samples are allowed to stand for 10 min. and then 5 ml. of freshly prepared KI solution (10 per cent) are added carefully. No bromine must escape. The KI solution is placed around the stopper in the funnel neck flask, the stopper is raised slowly, the KI is washed into the flask and the stopper is replaced. In case no iodine flasks are available, the following alternative method has been found to give satisfactory results: The bromination is carried out in a 100- to 250-ml. glass-stoppered container. Before adding the KI solution, the glass stopper and neck of the container are washed down as the stopper is removed and a funnel is quickly inserted into the neck. The KI solution is added quickly, both the inside and outside of the funnel stem are washed down immediately and the stopper is replaced.

The iodine which has been released by the bromine is titrated with 0.1 *N* sodium thiosulfate. When only a faint brown color persists, about 1 ml. of starch solution (1 per cent) is added, and the titration is continued until the blue color disappears.

Calculation of the phenol per standard surface:

$$W = (A - B)N \times 31.34$$

Where:

W = milligrams of phenol per standard surface,
A = milliliters of sodium thiosulfate required to titrate blank,
B = milliliters of sodium thiosulfate required to titrate solution,
N = normality of sodium thiosulfate.

NOTE.—A standard cap surface is defined as the surface of one long-skirt cap. A short-skirt cap has one-half of a standard surface, and a miniature cap has one-fourth of a standard surface.

Solutions:

Standard 0.1 N Bromate.—Dissolve 2.784 g. of $KBrO_3$ and 10 g. of KBr in distilled water and dilute to 1 liter.

Standard 0.1 N Thiosulfate.—Dissolve 25 g. of $Na_2S_2O_3.5H_2O$ in previously boiled distilled water and dilute to 1 liter.

Standardize against 0.1 *N* $KBrO_3$ solution.

Hydrochloric Acid (1:1).—Mix equal portions of HCl (sp. gr. 1.19) and distilled water.

Potassium Iodide (10 per cent).—Dissolve 10 g. of KI in 100 ml. of previously boiled distilled water.

Starch Indicator.—Dissolve 1 g. of soluble starch in 100 ml. of boiling water.

Duplicate determinations on separate sample preparations should check within 0.5 mg. of phenol per standard surface.

Loss of bromine is a common source of error in the determination. A blank run in exactly the same manner as the unknowns will help to minimize this error. Free phenol can be easily washed off the surface of the caps with water and care should be taken to see that the only water which comes in contact with the caps is that used in the test.

Odor-taste test

Samples taken from 33 shipments of phenol-formaldehyde plastic closures, as received from the manufacturer, were analyzed for free phenol by the method given and duplicates were forwarded to our Quality Laboratory[2] with their identities indicated by code numbers only. Here they were studied by (*Continued on page 112*)

[2] The odor-taste tests and correlation calculation were made by our Quality Laboratory, under the direction of E. H. Scofield.

WHEN HEEKIN PUTS COLORS ON A LITHOGRAPHED CAN.. They Stay Put

WHEN Heekin accepts a contract for lithographed cans . . . any shape or any size . . . the colors are specifically ground and blended for that particular contract. That's why each can is a true reproduction of your original design . . . whether the contract is small or runs into millions of cans. Heekin colors stay where they are laid by the lithographer . . . standing up against all conditions that face the packing, shipping or display of merchandise. You'll find that Heekin Colors Last. They Stay Put.

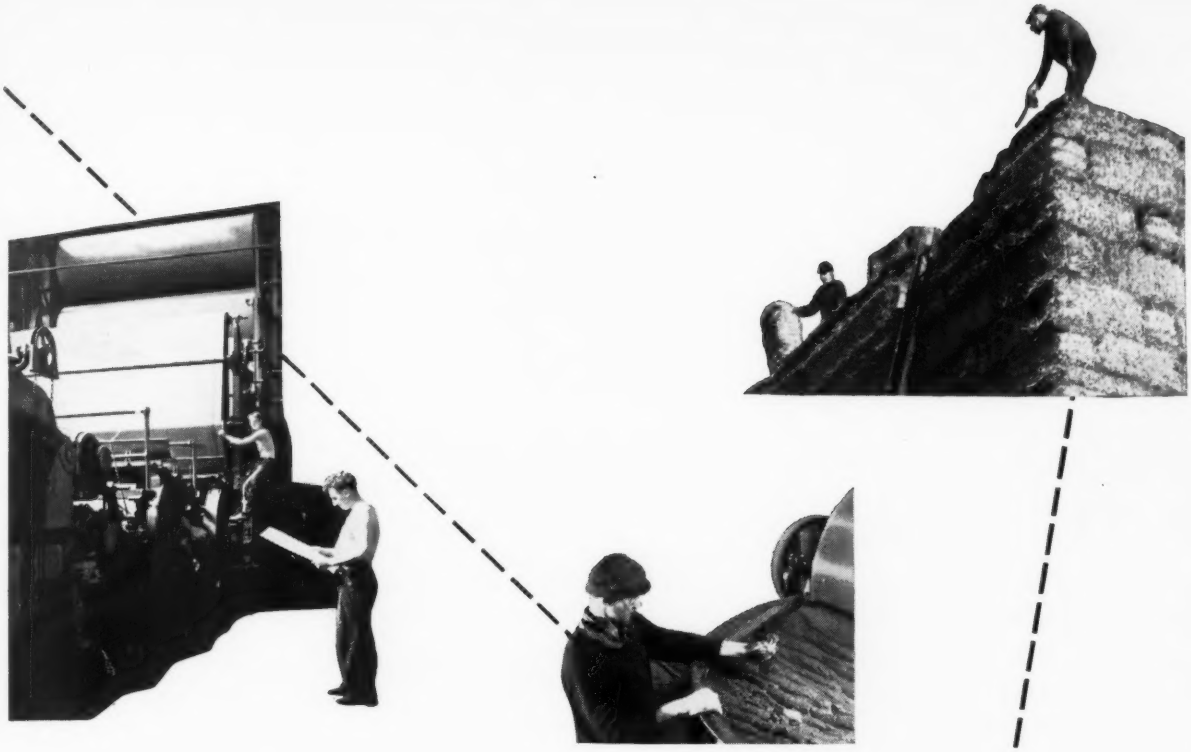
THE HEEKIN CAN CO., CINCINNATI, OHIO

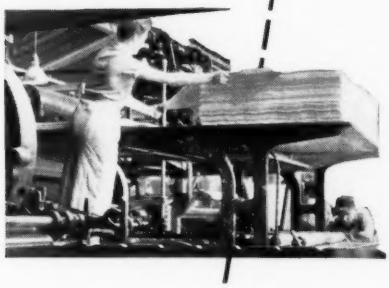
HEEKIN CANS
(LITHOGRAPHED)
With Harmonized Colors

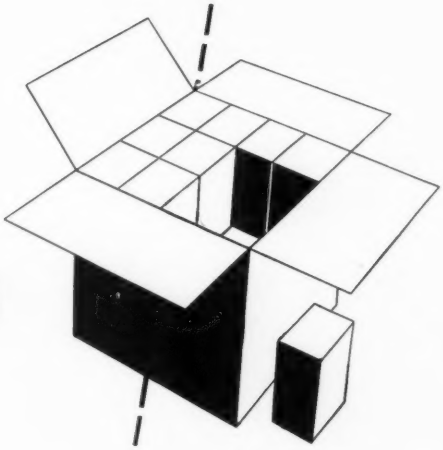
Standardizing for National Defense

On April 17 this year the Quartermaster Corps of the U. S. Army put its official stamp of approval on the final blueprints for a 2-lb. glass re-sealable table-service jar for the Army's jellies and preserves. The container, known as the No. 2 Army jar or the Tabl-Serv preserve jar, is low enough to permit easy serving at the table with an ordinary spoon. Leading preservers were quick to see the advantages in using this container not only for filling their Army contracts, but also a great number of them adopted it for their regular brands. To date more than 30 concerns are using this standardized unit-quantity container which is so well adapted to mass production. Modern Packaging asked all these firms to be represented in this issue. The names of those who responded to the request and sent samples of their jellies and jams in these new jars are listed below:

American Preserve Co., The Bama Co., The Crosse & Blackwell Co., Evangeline Pepper & Food Products, General Preserve Co., Greenwich Preserving Co., Inc., Holsum Products, The Lippincott Co., Senn Products Corp., The J. M. Smucker Co.







how many people in a package?

Paperboard packaging is a job for specialists. On Container Corporation's staff are chemists, laboratory workers, skilled mechanics, engineers, printers, artists, lawyers, traffic and sales-promotion experts—to name a few. Each man's contribution to the production of a shipping case or folding carton is vital to the success of the finished package. Container Corporation's control of raw materials, paperboard manufacture and package fabrication makes this thorough approach possible. And a staff of progressive, alert and experienced men and women has won a position of leadership in the packaging industry. For customers, their co-operation means control of quality, dependable supplies and favorable costs. Strategically located plants, manned by specialists, are at your service—through the nearest Container Corporation office.

CONTAINER CORPORATION OF AMERICA

Chicago, Illinois, and 21 Other Strategically Located Cities

Corrugated and Solid-Fibre Shipping Cases
Folding Cartons

U. S. patent digest

This digest includes each month the more important patents which are of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 10 cents each.

CONTAINER COVER. F. Neuschaefer, Rye, N. Y. U. S. 2,248,011, July 1. A closure carrying a brush applicator which is screwed onto the neck of a bottle to contain various liquids for use as coating compositions. The brush is permanently attached to the screw cap which is made from a molded plastic. The outer and upper portion of the cap contains three fins projecting upward to a distance about three times the diameter of the cap thus allowing space for two fingers and a thumb to grip firmly the cap and applicator. The cap is so balanced that, when allowed to rest upon a flat surface, the bristles will be tilted upward and not contact said surfaces, while the fins will prevent the screw cap from rolling.

FRUIT WRAPPING MACHINE. T. M. Vaughan (to E. Meyer, Hillsboro County, Fla.). U. S. 2,248,290, July 8. A wrapping machine for fruit comprising an annulus permitting the passage of fruit through the machine. Flexible material is fixed to the annulus radially to provide a web-like closure. The flaps overlap each other in their normal position and are of sufficient width to provide an enclosed passage for the fruit when they are deflected out of their normal position.

FOUNTAIN APPLICATOR. J. W. Brigham (to The Diagraph-Bradley Stencil Machine Corp., St. Louis, Mo.). U. S. 2,250,444, July 29. A self-contained fountain applicator comprising a reservoir in a tubular handle in which is contained the fluid to be applied. In the handle is included a valve which is opened by pressure of the applicator on the surface to be coated. The pressure on the handle not only opens the valve, but also operates a plunger at the upper end forcing a portion of the fluid into the spongy portion of the applicator head contacting the surface on which the solution is to be applied.

INDICATOR PACKAGE FOR CEMENTS AND THE LIKE. T. E. Workman and H. W. Sayre (to California Portland Cement Co., Los Angeles, Calif.). U. S. 2,250,980, July 29. A package for alkaline cementitious materials, comprising a multiple ply moisture absorbent paper bag, the outer ply containing an acid dyestuff which in the presence of an alkaline material undergoes a distinct and permanent color change resulting from the reaction with the alkaline substance when the outside of the bag is wetted.

BOX MADE OF CARDBOARD OR SIMILAR MATERIAL. J. W. Chalmers (to Molins Machine Co., Deptford, London, England). U. S. 2,247,870, July 1. A box made of cardboard or similar material with rigid corners and hinged lid formed from the same blank as the back of the box. The back panels are cut across the hinge in such a manner as to permit those parts of the back panel on opposite sides of the cut portion to move toward each other under lateral compression applied to the box during the opening thereof.

PACKAGING OF CIGARETTES. J. W. Chalmers (to Molins Machine Co., Deptford, London, England). U. S. 2,247,871, July 1. A box making machine equipped with a conveyor to feed the blank which includes the front, back, top and slide lid panels which are connected and form the walls of the container. Means are provided to position the adhesive between the reinforcing panel and the other panels engaged thereby. Means are provided to fold the lid panels to form a box-like lid, to fold the body panels to form the body of the box and to secure engaging overlapping body panels and lid panels.

COSMETIC POWDER BOX. A. J. Kusterer (to Randolph Paper Box Co., Richmond, Va.). U. S. 2,248,274, July 8. A cosmetic box consisting of telescoping flanges forming a powder chamber and having a seal for the sliding joint between the flanges. This consists of an encircling band of paper folded upon itself along one edge. The seal is pasted to one of the faces of the sliding joint by a layer of adhesive on the side of the fold and the adjacent portion of the band on the same side of the fold.

DISPLAY BOX. B. T. Osteen (to Birmingham Paper Co., Birmingham, Ala.). U. S. 2,248,547, July 8. A display container made from a body blank cut and scored to provide elements to form the bottom and side and end walls. A cover blank is cut and scored to provide a top and cover sides which are interlocked with an interposed end wall. A hinged flap connects the body bottom to the end of the cover which is folded down on to the body end, resting at an intermediate point between the cover sides which engage to hold the body against falling backward when its lower end is rested rearwardly between the cover walls.

DISPLAY BOX. R. A. Lambert (to Brooks Bank Note Co., Springfield, Mass.). U. S. 2,249,430, July 15. A display box consisting of a single blank having one decorated and one undecorated surface with portions of the blank interfolded forming an open top receptacle. The rear wall is made of a single thickness decorated on the outside. A pair of cuts extend laterally to the side edges of the extended portion from two spaced points lying in the rear wall midway between the side edges and a fold line in the rear wall and connecting the two spaced points so that the extension may be rotated around the vertical axis. The decorated surface faces the front wall to form a display card.

COMBINED SHIPPING AND DISPLAY PACKAGE. W. T. Bouchelle (to The Lord Baltimore Press, Baltimore, Md.). U. S. 2,249,881, July 22. A package made up of a collapsible shell open at one end, a basket having movable walls with a closure from the open end of the shell. The walls of the basket are held inwardly toward each other by the walls of the shell. The basket may be released for outward movement. The basket is held from moving upward within the shell by an integral tongue projecting inwardly from the shell and positioned to overlie the top edge of the basket.

METHOD OF PACKAGING SLICED LOAVES. G. C. Papendick (to Papendick, Inc., St. Louis, Mo.). U. S. 2,247,401, July 1. A method of packaging baked bread consisting of slicing the loaf, sub-dividing the sliced loaf into fractions, which are arranged into consecutive alignment. The separately wrapped fractions are shifted into end to end loaf formation and subsequently wrapping the fractions as a single package.

FILM OR SHEET FORMING APPARATUS. H. E. Van Derhoef (to Eastman Kodak Co., Rochester, N. Y.). U. S. 2,249,507, July 15. A film forming machine consisting of a hopper having an opening through which a film forming solution is fed on to a moving element. Means are provided for directing the solution on to the film forming element in the form of a sheet and includes a pair of rollers in contact with that portion of the hopper forming opposite sides of said opening. They are spaced apart to form a slot through which the solution flows. Means are provided for rotating each of the rollers in a direction counter to that of the flow of the solution through the slot.

YOU'RE RIGHT, Mr. Packer! It *is* unlikely housewives will buy your Glass-Packed Tomato Catsup simply because it has a CCS Short Friction Cover Cap on it!

BUT . . . *These smart-looking, easy-to-use little caps could be the determining reason why your brand was chosen in preference to another!*

CCS Cover Caps are precision made from specially annealed tin plate, on machinery of exclusive CCS design.

Their outstanding uniformity assures fast, trouble-free application and their trim, tailored design improves the appearance of your package.

They fit snugly—are easily removed—and snap back on for a re-seal. The indentations are so formed that they *hold* but do not *lock!*

Stocks carried at convenient locations permit fast shipment to all points of the United States.

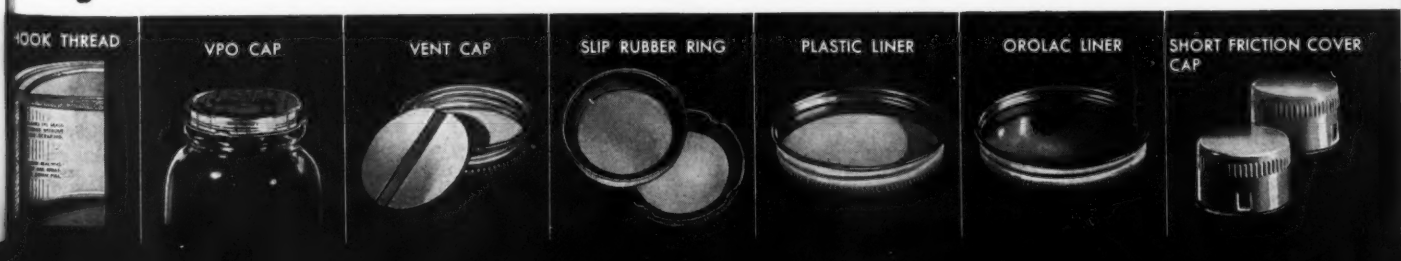
These Cover Caps are another CCS innovation and one of the 7 original sealing improvements Crown brought you *first!*

Write today for samples, prices and complete information.

CROWN CORK AND SEAL COMPANY, BALTIMORE, MD.

World's Largest Makers of Closures for Glass Containers

7 Closure Improvements CROWN *brought you FIRST*



WHERE THE U.S. ARMED FORCES ARE TRAINING
SELECTED for Speed, shaving and Comfort
KEY TO THE LOCATION OF CAMPS
KEY TO COLOR OF CORPS AREAS
MEXICO

MILITARY PROBLEM . . . *solved!*

JOE WHOOZIS was tapped by Uncle Sam last year, and his present address is Camp Whatchcallit. Joe is now giving his cigarette and sundry business to the camp canteen instead of the corner druggist. He doesn't see your national advertising any more, because he isn't reading magazines and newspapers much these days; and there is no midget radio on the shelf above his bunk. But Joe is a customer and prospect of yours, and you would like to keep him as such. And there are more than 1,400,000 Joes! . . .

That was the problem Gillette had . . . What to do? Very simple! Send out a snappy display piece to Camp Whatchcallit and suggest that it be put up in the canteen, where Joe would see it . . . The suggestion would probably get the bird from the canteen officer, and the display piece the heave-ho from the huskies who dish out ice cream cones all day long . . . The U. S. Army has a lot of lines of its own to merchandise these days.

So the problem was to get a display piece (**a**) to get to Joe, and (**b**) to get by the U. S. Army. Not so simple . . . Now multiply Joe by 1,400,000, and you realize the kind of headache Gillette had!

* * *

EINSON-FREEMAN then suggested a pictorial map showing the site of all military camps. A dummy of the map was prepared, and a Gillette man took the dummy around to a lot of canteens and asked if they would like such a map. Would they ! ! !

The maps weren't up in the canteens very long, before the rest of the Army wanted some. Lots of letters came in—such as the following:

Gentlemen:

Major R. E. Moore, the Morale Officer, would like to place copies of "Where U. S. Armed Forces are Training" map in the various recreation halls.

May I suggest that you send Major Moore a dozen of these maps.

Thanking you for your courtesy, I am
Yours very truly,
ROBERT F. EVANS, First Lieut. M. I.
Public Relations Officer.

And all sorts of other people, including Gillette dealers, wanted maps, too. As a promotion piece with a big plus, the Gillette Company feels this map has done a swell job.

* * *

EINSON-FREEMAN has lots of ideas that make *better* displays. But we feel it only fair to warn you that if you don't like ideas, or don't want to be bothered with display material that people like to look at, and dealers often ask for . . . don't come to Einson-Freeman.

On the other hand . . . well, the phone number is IRonsides 6-8900. And the address is given below.

FREE OFFER

to advertisers and advertising men . . . We held out a few copies of the Gillette map of military camps, and will be glad to send you a copy on request.

EINSON-FREEMAN CO., INC., *Uncommonly Creative Lithographers*

STARR & BORDEN AVENUES, LONG ISLAND CITY, N. Y.

Designed for Double Duty

Some products are "naturals" for certain seasons and holidays. Demand for them, at such times, automatically multiplies itself.

To direct the big, seasonal demand for any specific product to its particular brand, it has become customary among many advertisers to furnish special seasonable point-of-purchase display materials to their dealers.

Ordinarily the life of such seasonable displays, of course, ends with the season's passing . . . but not so the Armour Double-Duty display shown on this page.

When the bunnies, with their Star Hams in gay Easter wrappings, had finished their jobs of attracting the Easter trade, the overlay sheets upon which they were printed simply were lifted from the basic display. In their places appeared the Star Hams dressed in their "every-day clothes," so the Armour Chef remained on display for weeks, and often longer—holding valuable space double time and doubling circulation at nearly the cost of a single display.

The basic idea for this cutout was conceived by Armour's advertising department and developed in cooperation with their lithographer's creative department. Tested in retail stores before being reproduced in quantity, this display gave every assurance of doing its work successfully.

Of major importance with the Armour organization

is the distribution of display material. The proper placing of displays in heavily trafficked key-spots of communities to be covered, is essential for low cost window display circulation.

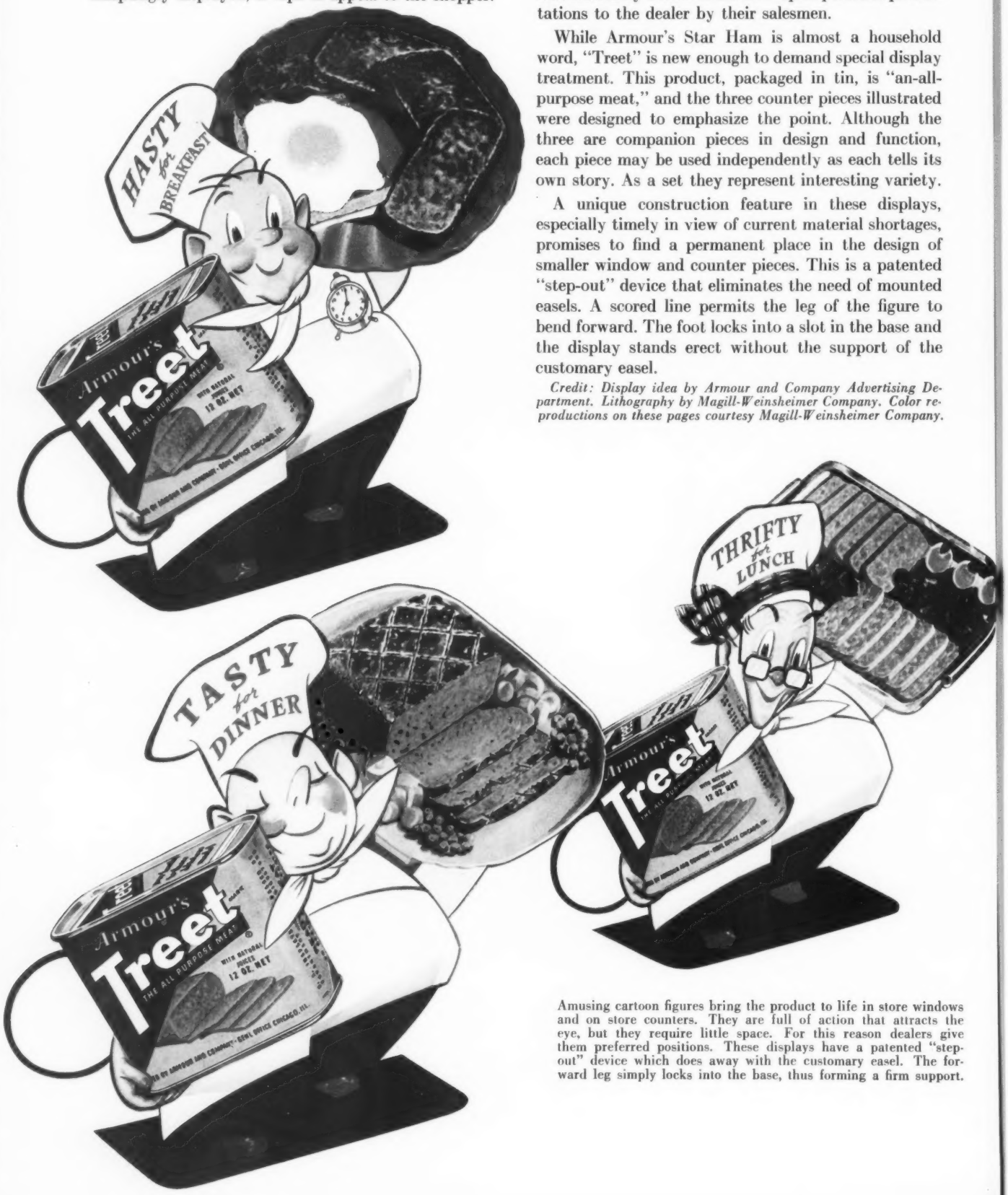
The retail market owner knows the value of his display space. He knows that actual merchandise, temptingly displayed, is tops in appeal to the shopper. And a lithographic display must indeed be good to rate a preferred position in his market or window.

Knowing that a display must sell itself to the dealer before it will be given a chance to sell the consumer, the Armour plan is to merchandise their display material to dealers, first by means of direct-mail broadsides and second by means of a follow-up of portfolio presentations to the dealer by their salesmen.

While Armour's Star Ham is almost a household word, "Treet" is new enough to demand special display treatment. This product, packaged in tin, is "an-all-purpose meat," and the three counter pieces illustrated were designed to emphasize the point. Although the three are companion pieces in design and function, each piece may be used independently as each tells its own story. As a set they represent interesting variety.

A unique construction feature in these displays, especially timely in view of current material shortages, promises to find a permanent place in the design of smaller window and counter pieces. This is a patented "step-out" device that eliminates the need of mounted easels. A scored line permits the leg of the figure to bend forward. The foot locks into a slot in the base and the display stands erect without the support of the customary easel.

Credit: Display idea by Armour and Company Advertising Department. Lithography by Magill-Weinsheimer Company. Color reproductions on these pages courtesy Magill-Weinsheimer Company.



Amusing cartoon figures bring the product to life in store windows and on store counters. They are full of action that attracts the eye, but they require little space. For this reason dealers give them preferred positions. These displays have a patented "step-out" device which does away with the customary easel. The forward leg simply locks into the base, thus forming a firm support.

Optrex, Ltd., repair chemists' bomb-blasted windows free on the condition they obtain a fair share of publicity.

BRITAIN'S CHANGING SHOP FACE

by DENYS VAL BAKER*

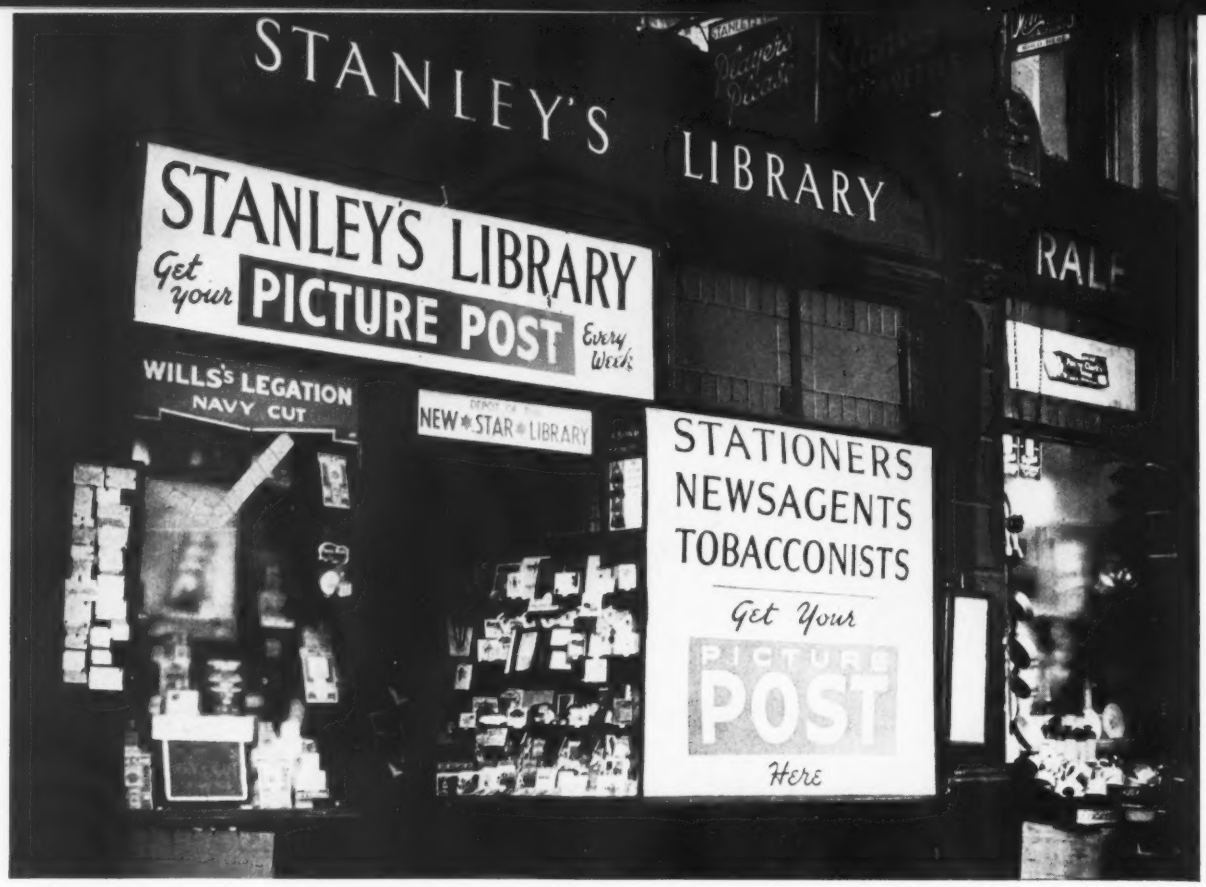
There is an artist in the British weekly, *Punch*, who draws a series of pictures under the title, "The Changing Face of Britain," showing an aspect of everyday life as it was before the war and as it is now under war conditions. I only wish that I possessed his artistic prowess so that in two quick, clear drawings I could give you the best possible illustration of "The Changing Shop Face of Britain."

For the change has been tremendous. However, we have become accustomed to it and if we were suddenly transplanted into one of your main shopping streets we should feel quite strange at the sight of the usual big windows and their bright, colourful displays—particularly the neon-lighting effects. But if some of you readers were to be standing with me now in Oxford Street or Regent Street, knowing them to be two of London's smartest shopping streets, you would be flummoxed. You would see no spacious glass frontages. You would see no elaborate decorations. You would see no intricate illuminations. In all probability in certain windows you would not even see any goods on show. Certainly you would have the war brought home to you humanly, directly and with far more effect than listening to a hundred war communiques. You would find the nation of shopkeepers forced to stint and starve their proud shop fronts.

Let me attempt to trace the wartime history of British display. In the first place we can discount the first year of war. With the exception of an early ban on neon-lighting, owing to the black-out, of course, there were no restrictions on display. Various paper control orders imposed limitations on the future use of board, crepe and other types of paper, but the effect of these limitations was not felt for many months. In any case every manufacturer had good stocks for the 1939–1940 autumn, winter and spring seasons. Plywood supplies became scarce, especially after the Nazi invasion of the Scandinavian countries, but various forms of substitute hardboard were introduced. Of course, there were still plenty of goods to fill the wide windows and plenty of wide windows to be filled.

September 1940 changed all that. The droning bombers of the Luftwaffe, swooping over on their first blitzkrieg, dropped tons of high explosives, one of the minor effects of which was to smash hundreds of shop windows. Not only were windows broken at the scene of bomb-explosions, but the blast travelled up and down streets, cracking windows here, there and everywhere.

* Managing Editor, *Shelf Appeal*, one of England's leading packaging journals.



Hulton Press, Ltd., Picture Post publishers, have, themselves, repaired several hundred shop windows. They provide all the designs and advertising material and the dealer meets only the cost of the actual boarding.

Startled shopkeepers rushed around buying up new glass sheets for their windows. In many cases they had considerable difficulty. Britain was deliberately exporting as much glass as possible beyond the needs of war production and the small quantities available on the home market had not been intended to meet such emergencies. But somehow they managed and within a few days a large number of shops once again presented the old familiar front.

A few nights later, though, the bombers came again. And again. Although not all shops had the experience of one men's wear firm that put in four new glass plate windows within two weeks, all very quickly came to realise that life had suddenly taken a rather terrible turn, which meant that big glass windows just didn't make sense. Some other material had to be used, one which wouldn't at the reverberation of an exploding bomb or even nearby anti-aircraft gunfire shatter into small fragments, littering the pavements and very often causing considerable damage to goods inside the window. There was another alternative, of course, and that was to use some means of strengthening glass windows so that they did not crack or shatter. Naturally enough there was a temporary influx of patent methods—gumming paper strips across windows, bracing windows with firm pads, held taut by steel wires affixed to each corner of the window and so on, but I feel bound to report most of these methods to be unsatisfactory.

The shopkeepers began replacing their glass windows and that was where the fun began. There was a complete lack of policy or of any sort of coordination. I believe that to a certain extent this was due to variations of supplies of different materials. Shopkeepers were forced to take anything they could get. Shopping centres began to take on a most extraordinary appearance. Walking down Tottenham Court Road I would see one shop window completely boarded up with wood and only a small printed notice with the word "Open" to indicate any sign of life. The next shop would have no wood, but there would be a window filled with a curious flexible glass-substitute material which swayed dismally in the wind and was sufficiently roughened to prevent my seeing the goods behind.

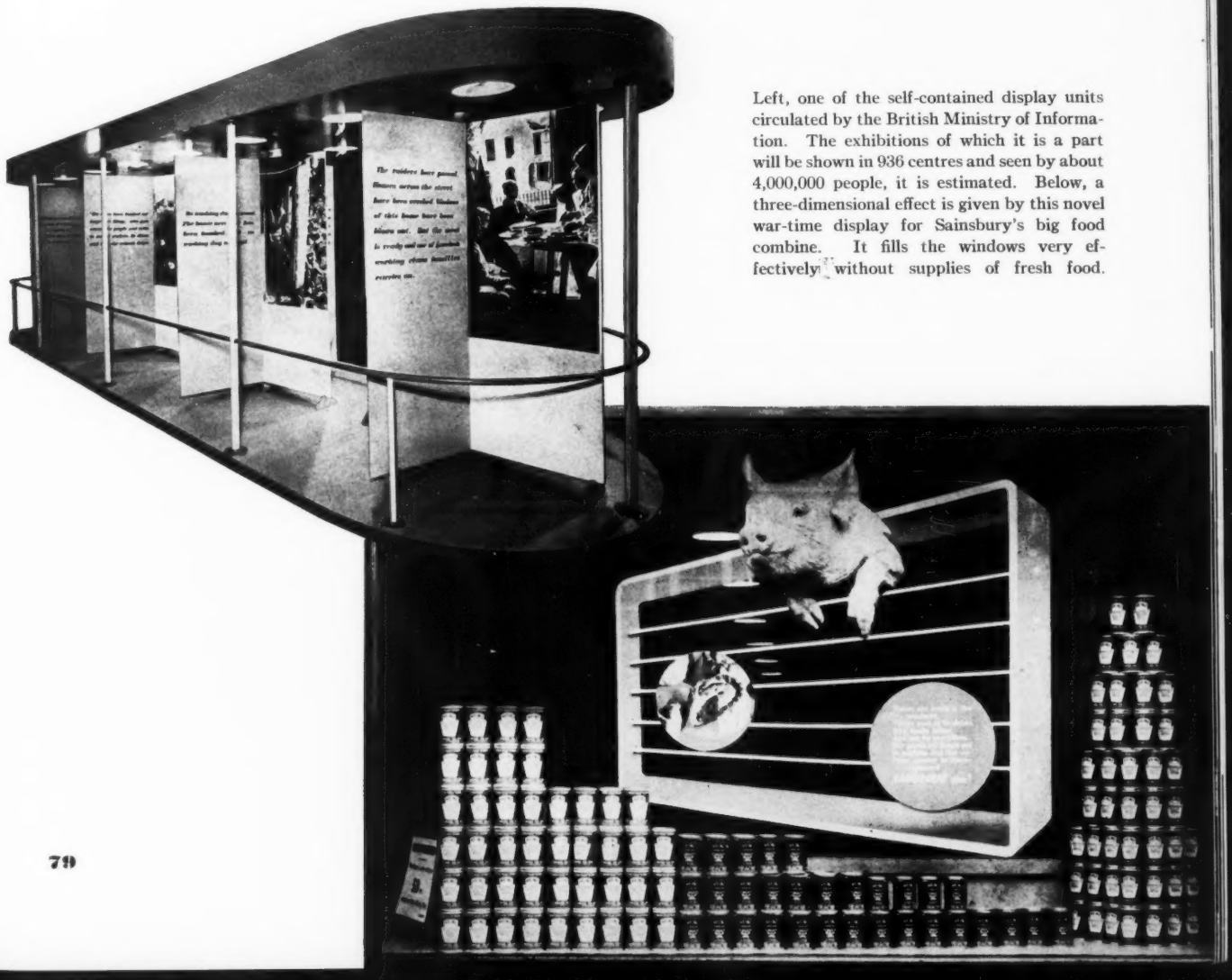
Another shop, by a stroke of luck, would be one of the handful out of all London which had had the foresight to prepare for such an eventuality as bomb damage. J. Lyons and Co., Ltd., the big caterers, were one of these. As soon as the raids began, they immediately had all their plate glass removed and replaced by specially toughened hardboard. They employed several well-known commercial artists to cover the hardboard outers with some brilliant designs—drawings of various articles of food, paintings of interiors of Lyons' restaurants and so on.

Despite Lyons obvious lead, it was several weeks before many other shops showed any real understanding of the fact that the display technique in Britain had changed completely, at least, for the duration. There

was too much of that initial tendency to protect the windows somehow and worry about good display afterwards. When bombed shop windows were a novelty, broken windows plastered over with "Carry On" slogans undoubtedly attracted quite a lot of business from sympathetic consumers. Very soon, however, consumers lost that capacity for sympathy, having probably just come from homes where all their own windows were blasted. Then, through force of circumstances, the shopkeepers did begin to tackle the display problem more sensibly, realizing that, with so many other forms of advertising rationed or prohibited, it was essential that they should make the most of display.

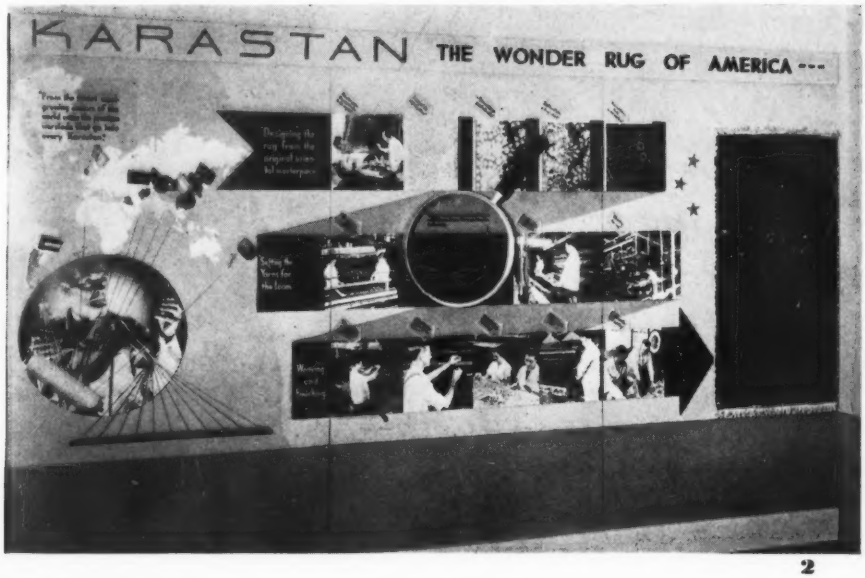
The first development was a greater understanding of the new and important status of the *outside* of the window. More and more shops began to use the services of really first-class artists to decorate their boarded-up windows. In most cases painting was used although one or two of the high-class stores, such as Walpole's of Bond Street, went in for impressive mural effects. The only snag with permanent paintings, usually on a white or cream hardboard background, was that they became dirty very quickly. As an alternative, Leon Goodman Displays, Ltd., one of our biggest display firms, evolved a scheme for featuring a series of small panels in each window. The designs, colors and messages of these panels could be changed with the seasons, thus constantly attracting even regular passers-by. In this way the best selling points of window display could be brought to the outside instead of the inside. Another idea of Goodman's was to have cut-out "windows," painted and decorated to resemble picture frames. About four people could peer through them at one time to see the goods inside the window.

Some suprisingly good effects were obtained in these external displays and they have certainly opened up new possibilities in the display field. For instance, Heal's, big London furnishing house, produced a series of wooden screens for their windows. On each one was a painting of a particular type of furniture—a chair, a bed, a couch and so on. Simple as this may sound, it was very effective and fitted in with the firm's high-class atmosphere. Several food shops have employed artists to paint gaily coloured enlargements of the types of food served in the shop. In general, the best have been those displays which feature one or more of the miniature windows to which I have referred. Some of the most successful users of this type of window have been the big stores. They have given, by a skillful use of painted backgrounds in conjunction with the goods shown, their miniature windows a dynamic selling force, very often more successful, (*Continued on page 114*)



Left, one of the self-contained display units circulated by the British Ministry of Information. The exhibitions of which it is a part will be shown in 936 centres and seen by about 4,000,000 people, it is estimated. Below, a three-dimensional effect is given by this novel war-time display for Sainsbury's big food combine. It fills the windows very effectively without supplies of fresh food.

1



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DISPLAY

1 For fall and winter showing is an attractively lithographed counter display for the Stewart-Warner Corp., the South Wind car heater. It is an ingenious two-piece unit which fits around the actual product, thereby making the car heater an integral part of the display. One piece reproduces the mast and sail of a boat and the other shows the boat with its tropical island girl passenger. Display by Forbes Lithograph Co.

2 Plastics comprise the greater part of this store display featuring the Karastan Rug Mills. The caption over the map of Karastan wool sources and the magnifying glass are made of clear methyl methacrylate molding powder as are the arrows explaining the various steps in making a rug. The latter, however, have been sprayed for a semi-opaque appearance in order to make the captions more readable.

3 A replica in miniature of the well-known Sun-Maid 15-oz. carton is the new penny-size $1/2$-oz. raisin package on merchants' counters in a simple display dispenser. The yellow of the display ties in with the yellow touch in the carton faces and the blue contrasts with the red. The upturned cartons carry the Sun-Maid girl, so she is omitted from the display. However, continuity of design is found in the use of a modified sunburst which carries the primary sales slogan for this addition to the penny miniature brigade, "Take Your Change in Iron."

4 A smart water-proof, dust-proof package of pink transparent sheeting bound in blue distinguishes the week-end counter cabinet of Nemo Girdles by Kops Bros. Eleven styles are featured in the re-usable packets and are shown in this blue and pink silent salesman cabinet. A decorative panel at the back of the display has product and brand identification and calls attention to the re-use package. Cabinet by Leopold Sonn & Bro., Inc. Printing by Herald Reproduction Co. Transparent sheeting by the Goodyear Tire & Rubber Co.

5 This is the convenient size syndicate store window display for the Cutex products of the Northam-Warren Co. It is made entirely of wood and is finished in high gloss lacquer. The lettering is cut out and appliqued and the photograph is hand-colored. Display by Adler Bros. Displays.

(Page 80)

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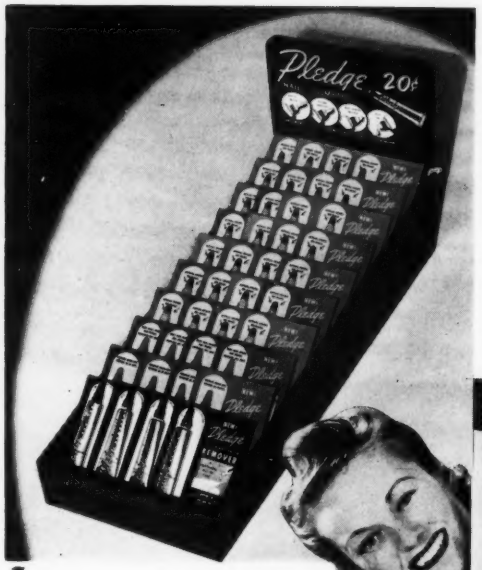

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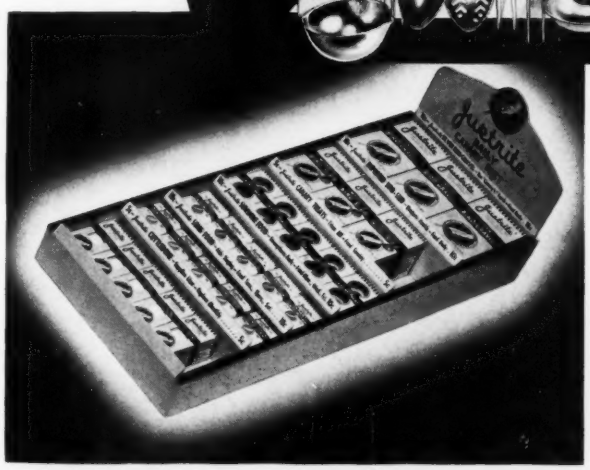
8

GALLERY

6 This unit which is used to show Armstrong's Picture-Packaged Rubber Sundries is called a Sellerator and is offered to druggists with purchases of rubber sundries above a stipulated amount. The display is entirely of metal and is available in right- or left-hand units so that druggists may use two or four of them together or separately in different parts of the store.

7 The Ohio Cosmetics Co.'s Pledge nail cosmetics in self-feeding brush tubes are seen in a step-up tray. The metal collapsible tubes have white plastic caps tipped in color. Four of them are stapled to each card and can be torn off for individual unit sales. Different colored strips on the tubes indicate the particular cosmetic and the colors are carried also on the cards. The tray, 8 in. by 25 in., is of wood in a light walnut shade, with a back panel card in cream color. Tray by New England Box Co. Cards by Radmar Press.

8 Edward Katziner Co.'s "Hang-Up" kitchen utensils make an eye appealing line-up on the colorful wall rack with seven handy hooks. The poster makes for effective showing of kitchen tools in the store and suggests to the housewife how to keep her most frequently needed utensils at her fingertips. Lithography by Caspers Tin Plate Co.



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9 Canary fanciers can see at once the correct 7-day menu for their birds by glancing over this Justrite weekly canary diet merchandiser. The tray is made of wood and painted in the three colors, yellow, blue and red, of the packages themselves. The educational pointers about bird diet given on the display and the cartons eliminate the need for a 50-page booklet formerly given out to customers. Designed by Alfred Parker Berry. Display by Claudius Displays.

10

10 The 1941 Blue Ribbon girl poster serves as a popular background for Pabst beer. It makes an attractive centerpiece around which to build a combination bottle and can arrangement. The tones of the original pastel drawings are reproduced faithfully. The display is constructed to withstand hard usage and exposure to all kinds of weather. Lithography by the U. S. Printing & Lithograph Co., Brooklyn plant.

"JUST LOOKING"

"Just looking" is the time-worn answer salesmen receive. However, the smart salesman never wanders far from Mrs. Shopper, for "just looking" is usually the prelude to a sale. In those few seconds, Mrs. S. gives her prospective purchase a real "going over" . . . then and there she decides a great majority of her purchases.

Consider for a moment your product's package. Can it win in such a short time, without a salesman to say a kind word for it? Is it colorful, eye-catching? Does it look neat . . *invite handling* . . . *say* all the things you want it to say?

We will be glad to help you step up the sales-power of your package. Our wide experience, gained in serving the great majority of America's packaged goods manufacturers, gives us a rich fund of ideas to draw upon.

Moreover, we have the machines to carry out package improvements at lowest cost. From our 78 different models, you can obtain the right machine for your needs—*right* for the type of package your product requires and *right* for fast low-cost production.

GO AFTER ECONOMIES NOW

Our designing department is ready to work on your packaging problems *now*. For lower costs and a better selling package, write our nearest office.

★

DEFENSE WORK

We, as well as other machine makers, are filling heavy demands for defense work. You will help your Nation, yourself and us by anticipating your own requirements for machines or service as far in advance as possible.

PACKAGE MACHINERY COMPANY, Springfield, Massachusetts

NEW YORK CHICAGO CLEVELAND LOS ANGELES TORONTO

Buenos Aires, Argentina: David H. Orton, Maipu 231 Peterborough, England: Baker Perkins, Ltd.

Melbourne, Australia: Baker Perkins, Pty., Ltd.

PACKAGE MACHINERY COMPANY

Over a Quarter Billion Packages per day are wrapped on our Machines

8,000 Case Loads of Wine in 8 Hours

Coinciding with the Roma Wine Co.'s nationwide campaign to boost consumption of packaged domestic wines is the company's establishment of a new bottling plant in Fresno, Calif. This marks a step forward for the American wine industry.

In the little over six months since the plant has been in operation, Roma's packaged wine sales have jumped 60 per cent. What this means to the young but fast growing domestic wine industry can be realized when it is considered that the Roma Wine Co., relatively unknown a few years ago, is now one of the largest independent wineries anywhere in the world.

That its influence upon packaging will be felt in the industry as a whole is further indicated by the fact that heretofore only a very small proportion of the domestic wine production has reached consumers in packaged form. Bound by traditions of a handcraft industry, wine makers have clung to the use of bulk containers, to a nondescript aggregation of odd sized and odd shaped bottles, to a bewildering variety of brands and labels which are entirely out of step with modern packaging practice. The building of a modern bottling plant and the inauguration of a program calling for simplification and standardization have placed the Roma Wine Co.

The new bottling plant of the Roma Wine Co., Inc., located in Fresno, Calif. It has been in operation for almost a year, within which time package wine sales have jumped 60 per cent, the company reports.

1

2

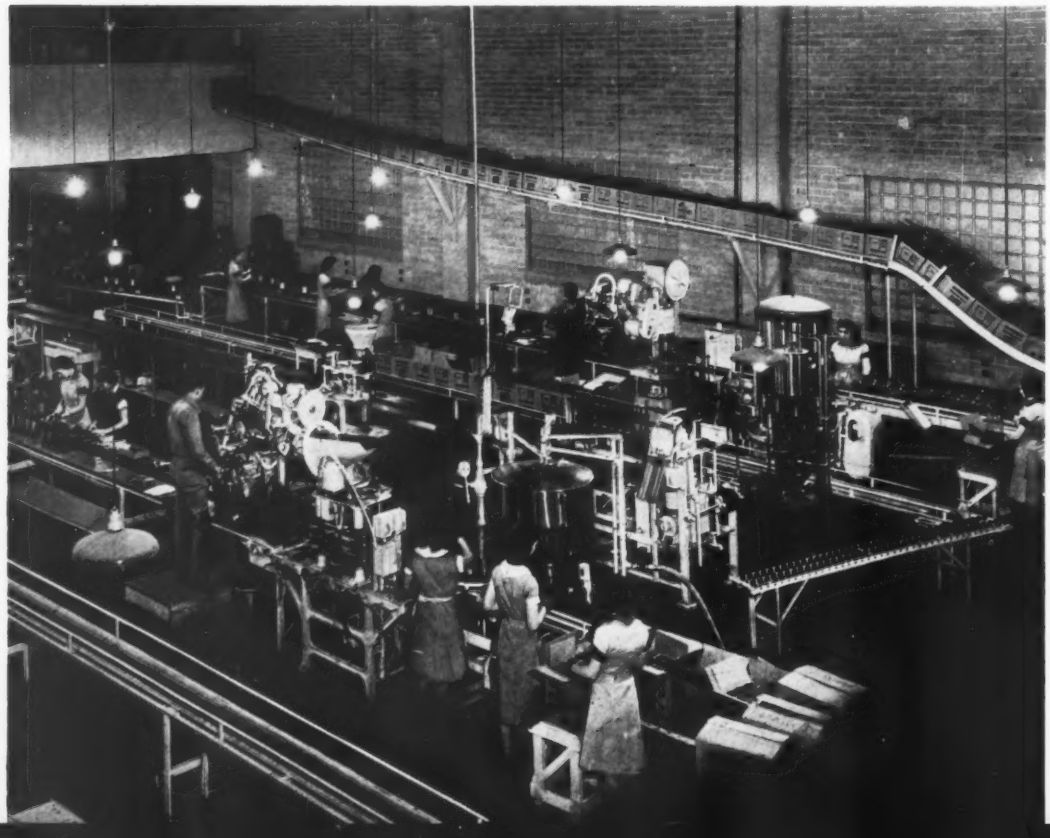
in the vanguard of progressive vintners in this country.

The company's main plant in Fresno is one of the most modern and one of the largest of its kind in the world, with a storage capacity of some 20,000,000 gal. of wine. Bottling only a fraction of this vast reservoir presents innumerable difficulties in connection with problems of production, transportation and timing. A fundamental aspect of the bottling process is the maintenance of uniform appearance and quality in a product subject to the vagaries of nature. The Roma Wine Co. produces 17 different kinds of wines in addition to brandies and champagnes. The grapes, harvested in different sections of California where grape growing is the second largest agricultural industry, are as varied as the soils and climatic conditions. Grapes suitable for the making of the red dry wines are drawn from the northern part of the state. Other sections produce grapes for port, sherry and other sweet wines.

Added to the 17 varieties of wines made from 15 species of grapes, there is the difficulty of operating automatic production lines in the central bottling plant which are fed a varied assortment of bottles—the gallons, quarts, fifths, pints and such miscellaneous sizes as the monk 12-oz. bottle. The list for brands is also long. Roma brands consist of a score or more in addition to some 70 local brands handled by sectional distributors and chain store organizations. Because of this extraordinary condition it was necessary to equip

1. The Photoelectric Colorimeter which is used for standardizing wine colors. These then remain constant for an indefinite time. **2.** From the empties storage department, containers with bottles are placed on conveyors going directly to the bottling line girls. **3.** The bottling room, showing the system of automatic conveyors, an important factor in the increased production.

3



the bottling plant with five production lines, each specializing in a size or group of sizes.

Although the building covers an area 106 by 370 ft., the five bottling lines occupy a small fraction of the space. A noteworthy feature of the bottling plant layout is the provision for storage space. Some 20 carloads of empty cartons and bottles are stored in the building, ready at a moment's notice to shuttle to the bottling line. Twice that many, 40 carloads, of full cases containing bottled and labeled wines can be stored while awaiting shipment to the company's distributors from coast to coast. Facing the bottling lines are wine storage tanks which can be tapped quickly to feed any one or all of the five lines. The 18 tanks are compact, half of them of 5,000 gal. capacity, the other of 10,000 gal. capacity. There is also adjacent storage consisting of 60 tanks where the wines are held in readiness for bottling. These are in addition to the battery of 650 fermentation and aging tanks, some with a capacity of 60,000 gal. each, most of which are constructed of concrete, an innovation in wine processing.

Though the five lines are capable of bottling 8,000 case loads of wines in an eight-hour work day, actually that capacity can be easily doubled. The system of automatic conveyors installed in the bottling plant has done much to effect this tremendous speed-up in production. Empty cartons and bottles are automatically conveyed from freight cars to storage space on the mezzanine floor. From that point the empties are conveyed to the five bottling lines through two continuous overhead conveyors which operate on the gravity principle. The conveyor sections located on the mezzanine are reversible. When not used to feed the bottling lines the flow can be reversed to load full cases in freight cars outside the building.

Some entirely new features have been incorporated in the construction of the bottling room, such as the use of pumice tile for insulation, glass bricks for maximum daylight, high footcandle power night illumination and air conditioning. A white color scheme has been standardized except in the case of storage tanks which have been given a distinctive cream color. Cleanliness is a prime factor in the bottling of wines as it is for other food products. In the Roma bottling plant cleanliness is stressed with an eye to good showmanship also.

A visitor to this modern bottling room immediately forms a favorable impression of the company's package and the product in it. All line girls wear spotless white uniforms. Among the showmanship ideas is the built-in display room facing the bottling lines. Here is shown an attractive collection of the company's packages exactly as they come off the lines.

Production flow has been greatly simplified with re-

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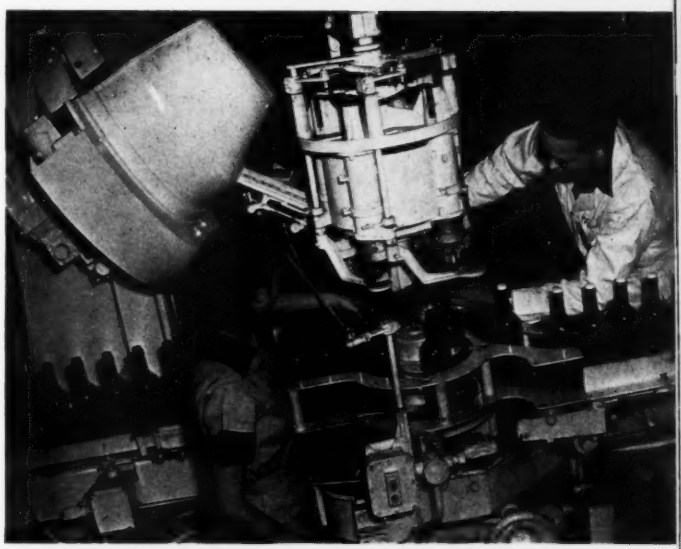
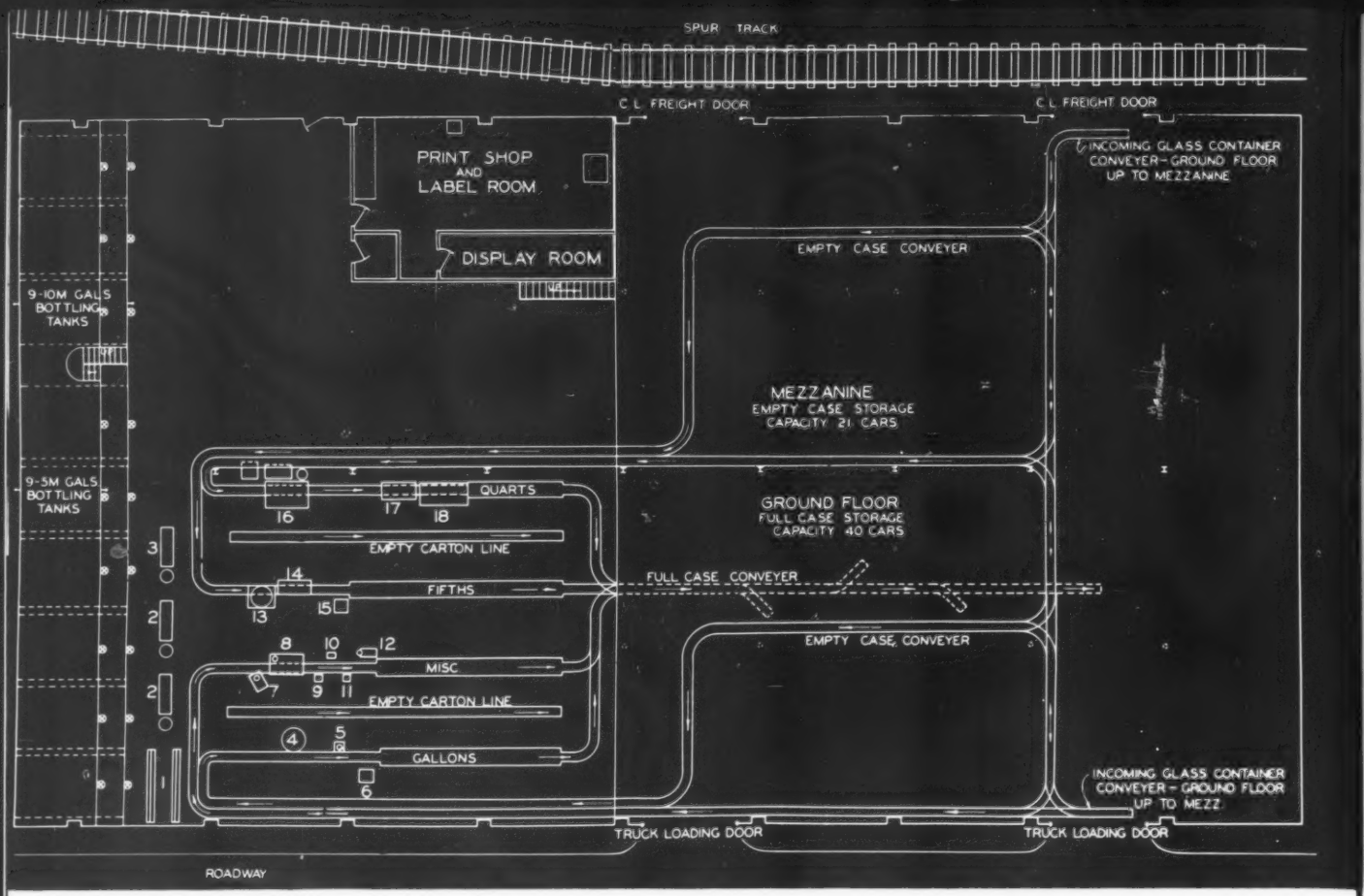


6

4. Bottles on the line being filled. Production flow has been simplified by adjusting equipment in each line for a certain size bottle. **5.** Bottle capping. A special line for those of miscellaneous size and shape eliminates change-overs for filling, capping and labeling. **6.** Labeling. Semi-automatic labelers are used in a number of the lines. The great variety of Roma labels makes this flexibility necessary.



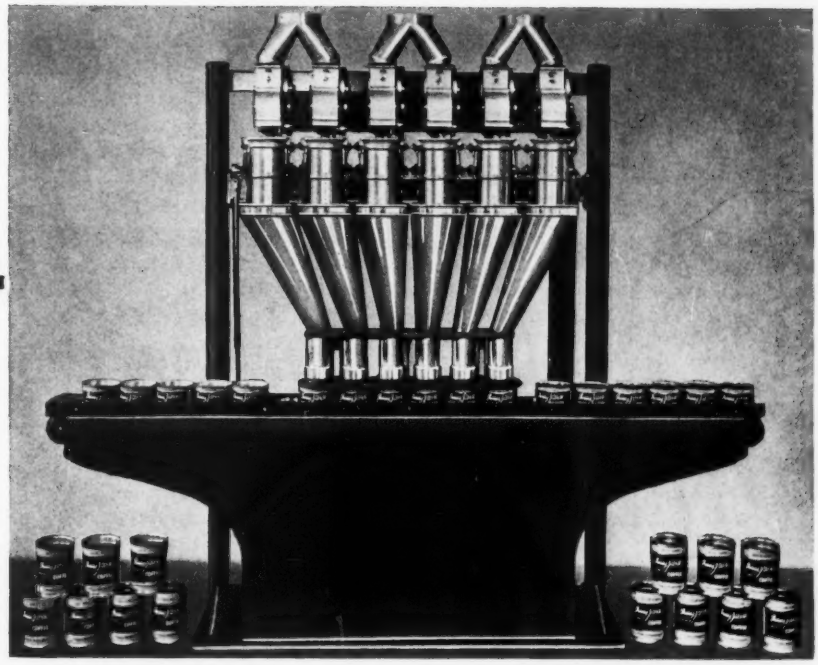
floor plan of the Roma plant in Fresno, showing the production line, the bottling tanks, the routes of the conveyors, etc. Noteworthy features are provision for storage space and five production lines, each specializing in a size or group of bottle sizes. These lines are capable of bottling 8,000 case loads of wines in an eight-hour work day. The storage tanks can be tapped at a moment's notice to feed one or all the lines. Seventeen different kinds of wine are made.

sulting efficiency by adjusting equipment in each line for a certain size of bottle. That is, however, deviated from by reserving one line for miscellaneous sizes and shapes. This practice has done much to speed up the flow by eliminating constant change-overs for filling, capping and labeling. Another element of flexibility is the use of semi-automatic labelers in several of the lines. This is necessary because of the great variety of labels used by the Roma Wine Co.

The labeling problem has been solved very simply by making up a daily flow sheet showing the number of cases to be run off the bottling lines and the brand names and labels represented in the lot. Four copies of the flow sheet are then distributed along the entire production line, first to the label room, located in proximity to the production office. Another copy goes to the empties storage department for requisitioning the necessary amount and size of glass. The third copy goes to the bottling-line girls for their guidance in filling the empties. The final copy then goes to the labeling supervisor. To eliminate possible confusion, one man is assigned to look after all labeling equipment in the five bottling lines. The one-man supervision idea is also applied to control the flow of wine to the bottling line. This detail is under the sole supervision of the wine man, whose job it is to connect up with storage tanks in order to provide just the correct quantity and grade of wine for the respective bottling operation.

Filtering and pasteurization are two problems which have given the wine industry a good deal of trouble. Seemingly these have been solved in Roma's modern bottling plant. It has been necessary to standardize two types of filters. The Seitz type is used since it is especially suited to the filtering of dry wines which must be kept thoroughly germ proof. In addition, Roma has what is regarded as an outstanding installation of Shriver filters. The battery of Shrivers, ranging from 24-in. to 36-in. plate, is capable of handling three-quarters of a million gallons of wine in a 24-hour period. Conveniently located at the head of the bottling lines and close to the storage tanks, the filtering equipment has proved fundamentally important in assuring an efficient production flow.

In the matter of pasteurization, the Roma Wine Co. has made a notable contribution in the form of equipment utilizing heat-resistant glass tubes. The new type of pasteurizer, designed by the company's own engineers and constructed of stainless steel and glass tubes, is especially adapted to pasteurization of dry white wines. This method eliminates the possibility of metal



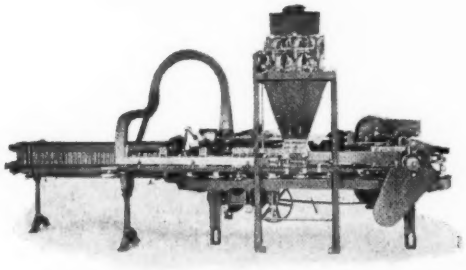
THE PACKOMATIC "CHIEF"

Weighs and Fills Coffee at 60 or More Per Minute

Handles bean coffee, coarse and fine drip grinds of coffee, and similar products; also cans or jars of various sizes within reasonable height range.

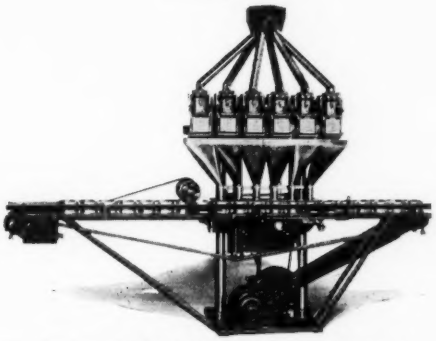
Built to receive cans from overhead chutes or from can conveyor on level and to deliver filled cans onto closing machine conveyor.

A compact unit built to fit into your present space, occupies floor space of only 2 ft. x 9 ft. including conveyor. No operator required.



Bottom and Top Carton Sealer with multiple unit Net Weigher. Speed 60 or more per minute.

Built with Automatic Carton Feeder if desired. Can be built for converting from one size to another. Seals both top and bottom flaps of cartons, compact, dependable.



Packomatic Six-In-Line Automatic Weigher.

For weighing free flowing products. Equipped with equalizing feed spouts, settling device, automatic scale trip, drive motor, etc. 60 per minute. No operator required.

REPRESENTED IN ALL PRINCIPAL CITIES FROM NEW YORK CITY TO SAN FRANCISCO

PACKOMATIC
PACKAGING MACHINERY
J. L. FERGUSON COMPANY, JOLIET, ILLINOIS

A PACKOMATIC MAN WILL CALL WITHOUT OBLIGATING YOU IN ANY WAY

contamination which has been the greatest cause of cloudiness and turbidity in the bottled product.

Roma's bottled wines are widely known for their clarity and uniformity of coloring. This is not incidental but the result of scientific control underlying every production process, from that of fermentation to bottling. The concrete fermentation tanks used in the Fresno plant are lined with special glass-like lining which cannot break or chip through expansion and contraction. Before the wine is bottled it must go through various turbidity and stability tests. Delicate photoelectric equipment has been designed for this highly specialized purpose.

Another piece of delicate scientific equipment, known as the Photoelectric Colorimeter, is used for standardizing wine colors. Once a color has been standardized, it becomes constant for the entire production and for an indefinite time interval. Any variation in the established color standard can be minutely detected by the delicate photoelectric cell and corrected according to the fixed standard.

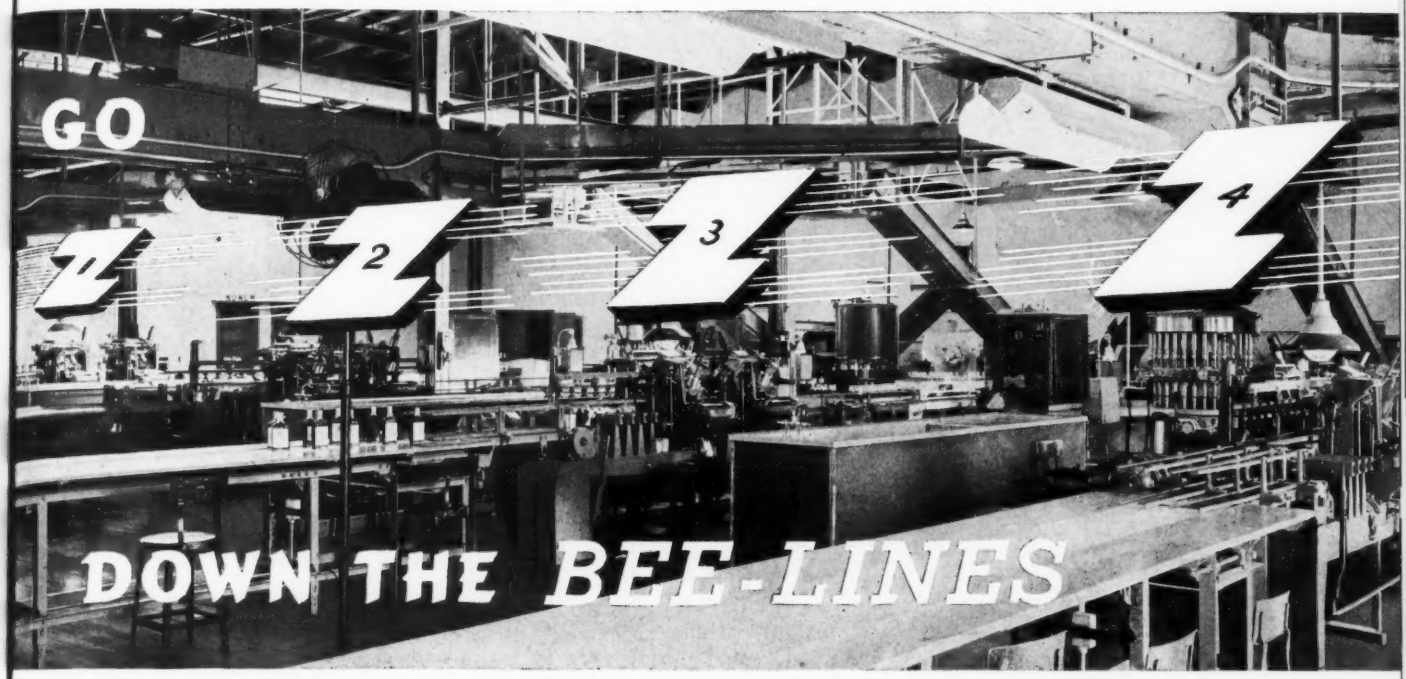
Back of the bottling plant is a scientific laboratory where, in addition to determining clarity and standardizing color ratios, much work has been done in the matter of oxidation reduction. This is another problem that has plagued the wine industry and complicated the packaging problem. Roma's laboratory experts have investigated the effect of oxidation on wine during the long aging periods necessary for the production of a high-standard product. On the basis of scientific findings the company has worked out a system of control which eliminates the possibility of oxidation before and during the bottling period. Careful tests are made each day just prior to bottling and then during the bottling period to detect the slightest tendency to oxidation. One of the most effective means of preventing oxidation has been the use of vacuum filling machines so that bottles may be filled automatically without air entering them. This method of preventing oxidation results in crystal clearness and absence of sediment in the sealed bottle.

Credits: Cappers by Capem Machinery Corp., R. G. Haskins Co. Fillers by Horix Mfg. Co., U. S. Bottlers Machinery Co. Fillers by T. Shriver & Co. Labelers by Edward Ermold Co., Economic Machinery Co., Pneumatic Scale Corp.

8. The bottled wines in their cartons are here being placed on the automatic conveyor ready for shipment to the company's distributors throughout the country. **9.** This is the line of cartons being loaded directly into the freight cars outside the building. Conveyors on the mezzanine are reversible. When not used to feed the bottling line, the flow can be reversed to load full cases in cars. Thus, there is complete flexibility in the automatic conveyor system which makes for efficiency and considerable saving of time and valuable floor space.

NATIONAL DISTILLERS

Crab Orchard *quarts* . . . Bond & Lillard . . . Old Sunnybrook . . .
Black Gold . . . Old McBrayer *pints and half pints* . . .



4 WORLD Automatic *BEE-LINE* Straightaway Labelers *keep them humming at the*

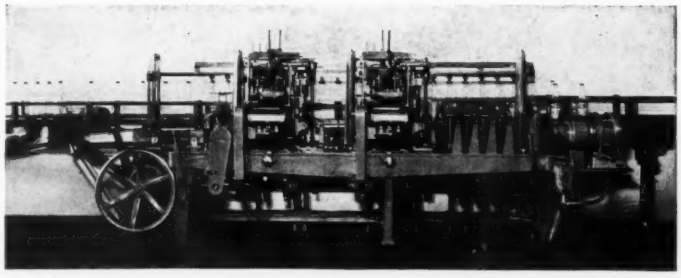
K. D. & W. Bottling Plant of National Distillers Products Corp. at Louisville

You'll never know how smooth and trouble-free and economical your labeling operation can be until you put your bottles on a BEE-LINE.

The WORLD Automatic BEE-LINE Straightaway Labeler delivers the goods swiftly but safely — each and every container neatly, firmly and accurately labeled without a single traffic jam, stop or detour. It's just the ticket for the new, light weight glass.

It applies front labels, front and back labels — neck labels, too — to all kinds and sizes of glass packages.

For better labeling at lower cost put yours on the BEE-LINE. Send us a set of your labeled containers and we'll give you the whole story.



Close-up of one of the World BEE-LINE Straightaway Labelers pictured above. This is the Hi-Production Model, equipped with twin labeling stations for double production while maintaining the most efficient speed of label application.

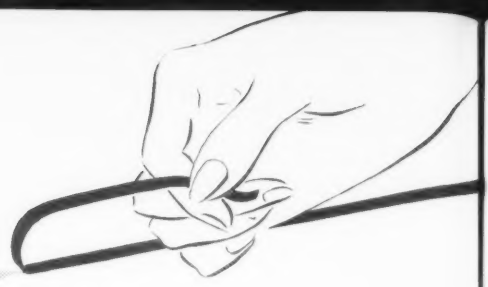
ECONOMIC MACHINERY COMPANY

Builders of World Automatic and Semi-Automatic Labelers for Every Purpose

Worcester, Massachusetts

NEW YORK CLEVELAND BALTIMORE PITTSBURGH CHICAGO DENVER SAN FRANCISCO LOS ANGELES
LOUISVILLE SEATTLE PORTLAND, ORE. LONDON MONTREAL TORONTO WINNIPEG
VANCOUVER SYDNEY, AUSTRALIA WELLINGTON

Bread with *Zippers*



"It's unbelievable!!... You have to see it! Only Old Home Bread in the Pantry Package opens with a ZIP! Two half loaves . . . half for now . . . half later!"

If you live down Baltimore way, you know what radio announcements like this mean. You've heard these spot announcements with your daily newscasts over local radio stations. It is the way the Schmidt Baking Co. of Baltimore is telling the public about its new Old Home Bread Pantry Package—an innovation in bread wrapping which has increased bread sales by some 30,000 loaves a week for this enterprising company.

The Pantry Package is wrapped like this: The bread is first put through a slicer. Half is then wrapped in cellophane and the other half in printed waxed paper. Over these halves goes a complete overwrap of cellophane. In the center, a 1/4-in. tape of heavier gauge cellophane is affixed by heat-sealing. One end of the tape is left as a tab at the bottom. To open the wrapper, you grab the tab and pull. The wrapper opens with a "zip"—similar to the way you open a cellophane wrapped cigarette package.

The whole idea and the wrapping equipment to carry it to successful production were developed by this organization. Back in 1932, the Schmidt Baking Co. startled the baking industry by wrapping white bread in cellophane. Other bakers told the younger Schmidt that he would go broke and Mr. Schmidt, Sr., on the day they first tried to run cellophane through their wrapping machines, crawled out of the mounds of wasted

1. Old Home Pantry Package has an outer wrapper of cellophane which opens like a cigarette pack. Inside are two completely wrapped half loaves—half for now—half for later, to be stored until opened for use.

Pantry Package
ENRICHED WITH VITAMINS AND IRON
GRAB THE TAB ON THE BOTTOM OPEN IN THE MIDDLE WITH A ZIP!
SCHMIDT'S OLD HOME
ENRICHED BREAD

2

3

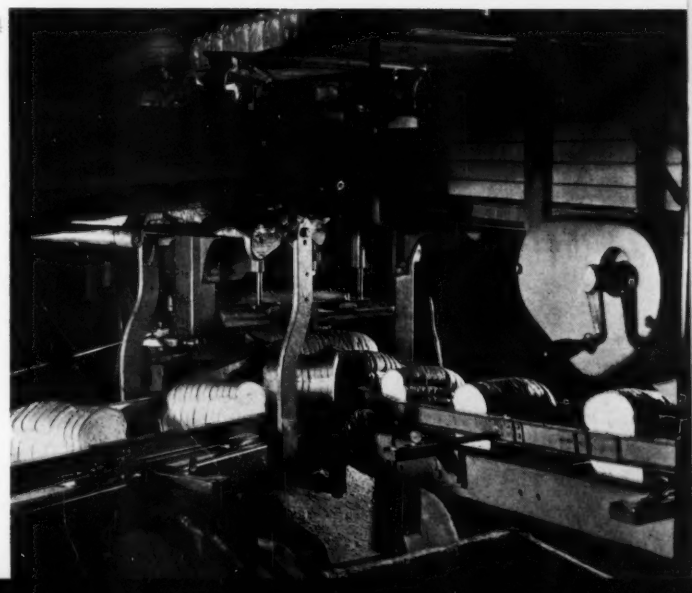
cellophane which clogged the machines, threw up his hands and in language that can't be repeated here said, "You got us into this; now you get us out."

Schmidt, the younger, got them out. He sold white bread in cellophane at the same price that other bakers sold bread in other wrappers and he made money.

"We were able to do it," he said, "because we watch our operating costs very carefully and we believe it's very important in today's competitive markets to add the savings to the package."

This reasoning is borne out by the subsequent history of the Schmidt Baking Co. After other bakers joined the parade of cellophane wraps, Old Home Bread's cellophane wrap lost its merchandising novelty. Carl Schmidt began thinking up more ideas.

His next package was the half-loaf double wrap. He believed that in this era of small families, small houses, small apartments, the housewife sometimes had difficulty in keeping a whole loaf of bread fresh until it was used up. That's why he devised his new inner wraps for half loaves, one that could be used immediately, the other that could be stored completely sealed in the bread box or in the refrigerator as more and more homemakers



4

2. The wrapping operation from start to finish is accomplished by a specially designed installation which requires only one man to operate. **3.** Bread is delivered on racks to the wrapping unit and fed on to a conveyor. **4.** It is carried through a vertical slicer after which a separating device shunts one half of the loaf on to another conveyor which carries it to a standard wrapping machine for a cellophane wrap and the other half to a standard wrapping machine for a wax paper wrap.

are doing to keep bread fresh longer in warm weather.

He selected cellophane for wrapping one of the halves and waxed paper for the other. The reason for the latter was economy. He wanted good trade and product identification as well as informative copy on the loaf. The printing of this data on a waxed paper is less expensive than printing on a cellophane sheet. He wrapped both loaves in an outer wrap of cellophane. The cellophane outer wrap was perforated in the center so that the two inner half-loaf packages could be separated simply by taking the loaf in both hands and tearing it in the middle.

"But we couldn't get women to do it this way," he said. "They continued to tear it open at the ends. This was difficult and we had a feeling we were losing sales because of this."

It was at this point and after observing the methods for opening cellophane wrapped cigarette packs that he hit on the cellulose tape as a zipping device.

Then began more headaches, more long conferences with machinery manufacturers and more strong words from Mr. Schmidt, Sr. But in May of this year everything was ironed out and the zipper wrap ready for the shoppers of Baltimore. The whole wrapping operation from start to finish is now accomplished by a specially designed installation which requires only one man to operate. All he has to do is feed the loaves on to it, then take them off and load them in shipping containers which are loaded on trucks and delivered to the company's approximately 3,000 dealers in the Baltimore metropolitan area.

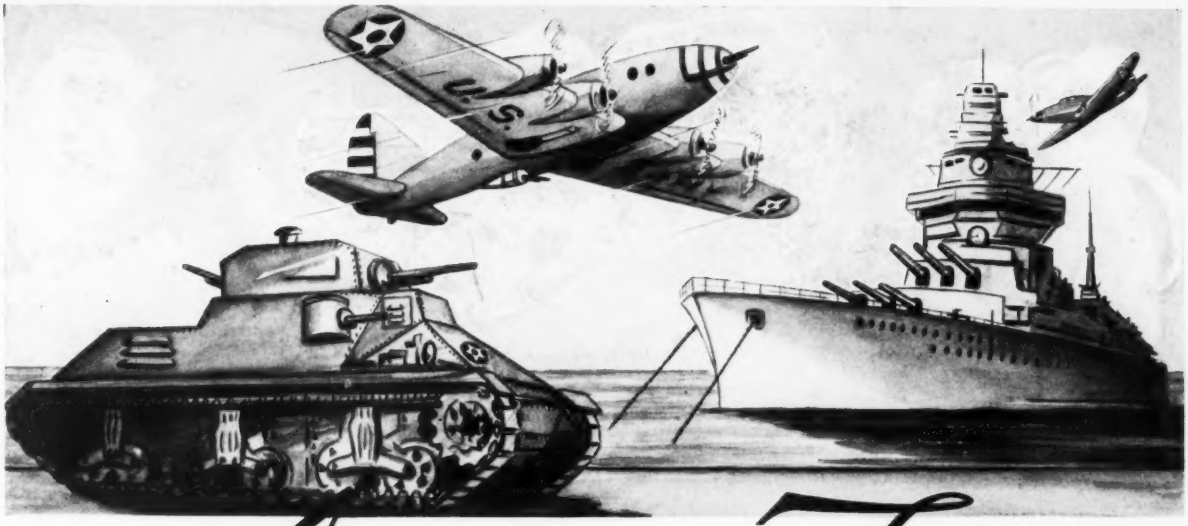
The unwrapped fresh loaves are delivered on vehicle racks to these wrapping units of which the company has two. They are fed on to a conveyor which carries them through a vertical slicing machine. After they are sliced, a separating device shunts half of each loaf on to a conveyor which carries one to a standard wrapping machine for a cellophane wrap and the other half to another standard wrapping machine for its printed waxed paper wrapper. Then, by conveyors the two halves are carried back together in the form of the original loaf and to another wrapping machine for their outer wrap of cellophane.

At one side of this wrapping machine is a special device which affixes the red heat-sealing cellophane tape used as the zipper to the flat sheets of cellophane before they go into the wrapping machine. The company uses No. 300 heat-sealing cellophane for the wrappers and No. 450 heat-sealing cellophane for the $^1/_4$-in. tape. Because of the greater thickness of the tape, the end flap tears the wrap without any effort.

At present, this baking company is using this new method of wrapping bread as the main theme of its merchandising program. They use 24 spot radio announcements about it daily on local stations covering their market area. They have a crew of women demonstrators who call on local housewives and tell them about the new bread wrap and how it works. Does it pay to sell the package? Well, watch Mr. Carl's face light up when you ask the question.

Credit: Wrapping machinery developed by Hayssen Mfg. Co. Cellophane by Sylvania Industrial Corp. Waxed paper wraps by Nashua Gummed & Coated Paper Co.

5. After the inner wraps are completed, the half loaves are carried back together in the form of the original loaf and to another machine for the outer wrap of cellophane. **6.** At one side of the final wrapping machine is a device which heat-seals the cellophane tape to the flat sheets of cellophane before they go into the wrapping machine.



America First... Then Business as Usual

Automatic Strip Stamping Machines for the uniform placement of revenue stamps on whiskey bottles at a speed of 40 to 120 per minute.

Machines for packing smoking tobacco in pouch packets, using either wax paper or mounted foil.

Tobacco Stamping Machines.

Combination Pouch Labeling and Stamping Machine for smoking tobacco.

Weighing devices for tobacco and free flowing articles.

Envelope Filling & Sealing Machines, and other machinery for the tobacco and food industries.

Machines for automatically feeding individual sheets of paper or mounted foil.

Cigarette Packing Machine, counts and wraps in foil or printed labels, 5, 10 or 20 cigarettes.

★ Today . . . while the tasks imposed by National Defense affect us as well as others in the packaging industry, we pledge ourselves to guard to the best of our ability our half-century record as a trustworthy source of supply.

★ Since 1893 this Company has maintained an organization of engineers and craftsmen whose efforts have created for it a prominent position in the industry. During these years "Wright's" have become known as the source of automatic packaging machinery already introduced, or for dependable engineering to meet vital problems of the moment.

★ In times which are perplexing to business as well as the country—"Wright" has geared its organization for maintenance of its service to customers as well as to the country. So . . . we say again to think of "Wright" when packaging counsel is needed. On the premise of "American First . . . then business as usual" your needs will be handled to the best of our ability.

ESTABLISHED • 1893 •

PACKAGING ENGINEERS

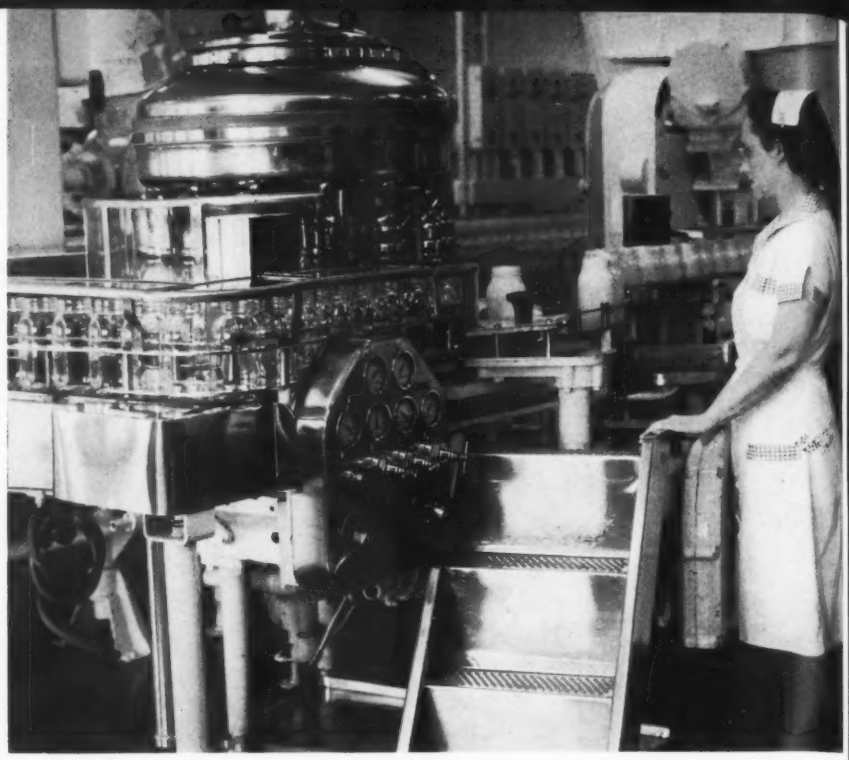
WRIGHT'S AUTOMATIC TOBACCO PACKING MACHINE CO.

DURHAM CABLE ADDRESS YONWRIGHT **NORTH CAROLINA, U. S. A.**

Safety-Kraft

by GEORGE CURRIER*

Accident prevention is an art at the Kraft Cheese Co.—"built" right into the machinery



1. Miracle Whip filling machine has roof over jar conveyor built of transparent plastic in steel framework. Fence-shield around filling machine has plastic windows. Portable steps have safety treads.

They aren't talking about Old Man Accident when they say, "That guy couldn't fight his way out of a paper bag." The masters of the packaging industry may feel that their modern machinery produces containers in which anything—even punch-drunk prize fighters—can be wrapped, sealed and preserved until ready for use. But when a machinery accident starts it throws nothing except Sunday punches and can fight its way out of the prettiest cellophane bag or the snappiest cardboard carton the industry could fashion.

It takes tough, tempered metal, shatter-proof glass and stout plastics to build the kind of packages in which accident hazards can be sold down the river in quantity lots. The fact remains that about the only neat, streamlined packages with eye appeal the packaging industry has not designed are the kind, just mentioned, which will seal in the accident hazards of its own machinery and seal out hands, feet and bodies of its employees.

The packaging industry gets pretty good volume on accidents, too—accidents that are costly, damage material, upset production and injure employees. It could use a fine job of designing for packages in which to wrap the accident hazards of, say, the sealing, forming, filling, capping, nailing and labeling machinery with which the modern packaging plant is studded.

Machine guards are safety's trade name for the kind of packages I'm talking about—guards for pinch points, nip points, cutting edges and whirling gears, mechanical or other safeguards for protection against accidents involving all the cooling, heating, sterilizing, freezing, conveying and electric equipment used by the industry.

It is odd, in a way, that so many of the punching, squeezing, shaping, cutting machine operations in the packaging industry still are nakedly unguarded. If the packaging industry can design the amazing machines it needs (it can and does, of course,) for production, then it can design them for safe operation and get even more efficient production.

Obviously, machine guarding and the rest of an industrial safety program isn't extra-curricular activity taken on by management to create jobs for safety inspectors, accident record-keepers and safety promotion men. The project pays off in dollars and cents, improved employee morale and better production.

Again, obviously, it is exposure to accident hazards that causes accidents. Unguarded industrial machinery bristles with accident hazards. Machinery, according to National Safety Council records, contributes 21 per cent of all lost-time accident cases in manufacturing industries. Guard the gears, sprockets, points of operation, etc. of machinery and exposure is reduced by just that much.

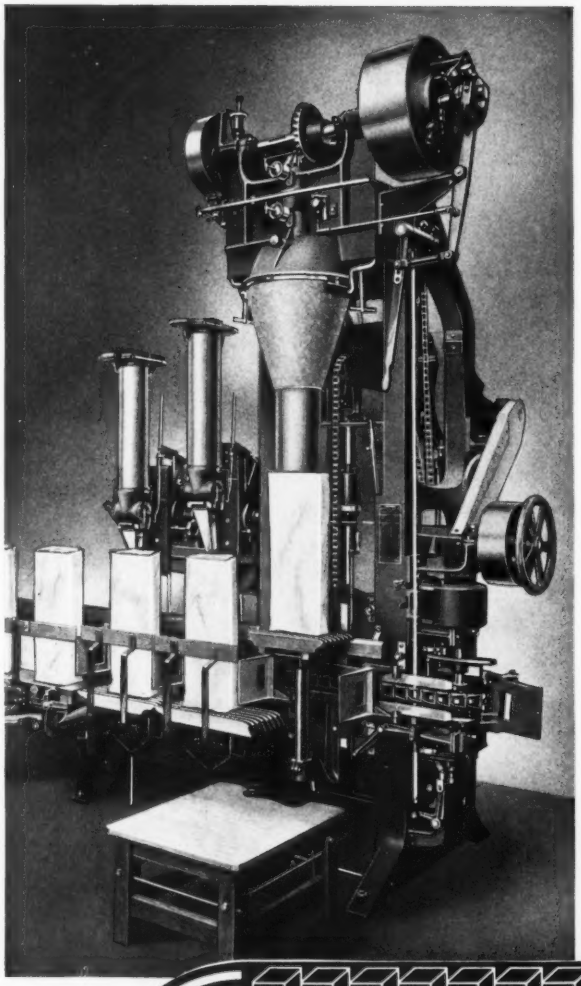
In the food and beverage packing industries considerable safety for employees is obtained through observance of regulations of the pure food and drug laws. Although the aim of these laws is to protect the consumer, several of their provisions serve also to enhance safety of production as well as its quality.

Beyond the benefits to employees that result from meticulously clean and sanitary conditions, a few of the packaging companies go to great length to "safetyize" their plants for the sake of safety alone and the increased production efficiency that is safety's shadow.

Notable among the plants in which the safety of employees is paramount is the Kraft Cheese Co.'s plant

* National Safety Council.

PNEUMATIC'S "BATTLESHIP" BAG FLOUR PACKER



To the trade which uses it belongs the credit for naming this versatile flour-weighing machine. Rugged in construction, reliable in performance, the Battleship Bag Flour Packer goes along year in, year out, giving efficient, dependable service. An amazing number of these machines have been in service for more than two decades: ASK the miller who owns one. He'll know why millers call Pneumatic's Large Bag Flour Packer, the "Battleship." Photo at left.

3 Models, the most accurate and fastest flour packers on the market

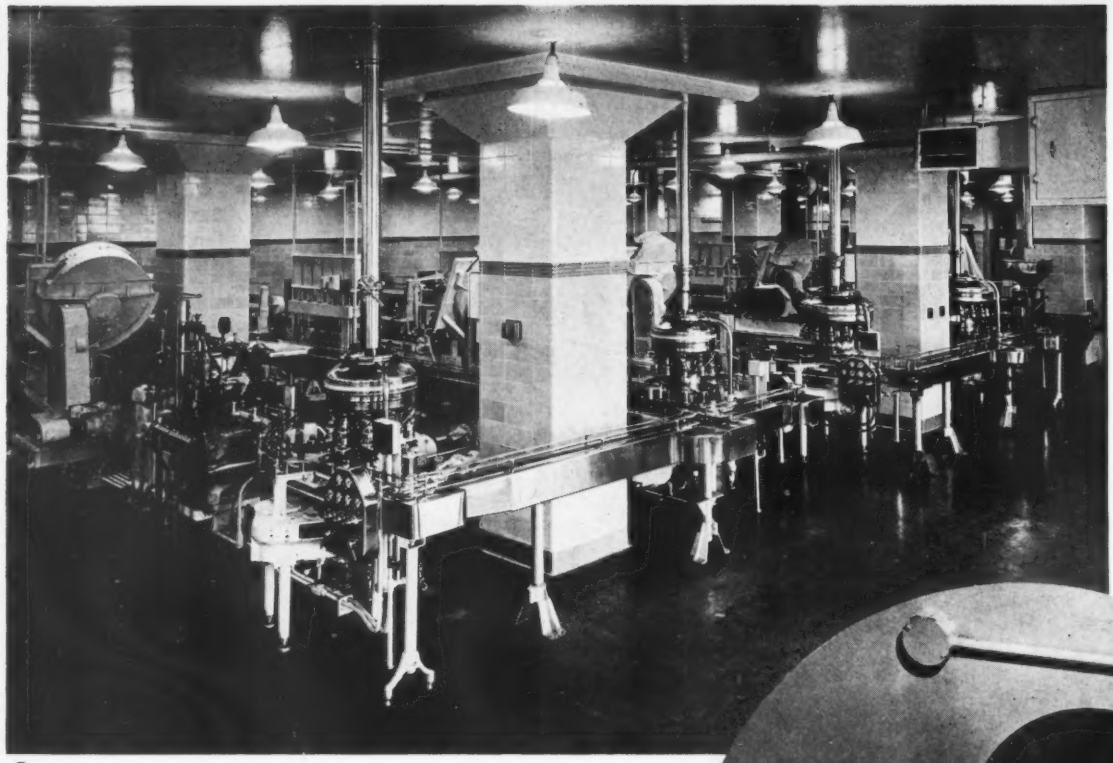
The "Battleship": Handles 12-lb. to 49-lb. sizes.
Speeds — 10 to 16 per minute depending on bag size.
Accuracy — 49-lb. size — within 1 oz. plus or minus.
24-lb. size — within ½ oz. plus or minus.
12-lb. size — within ¼ oz. plus or minus.

Medium Machine: Handles 2-lb. to 12-lb. sizes.
Can also be equipped for 24-lbs.
Speed — 15 to 22 per minute depending on bag size.
Accuracy — Depends on bag size but will be within ¼ oz. on above range.

Small Machine: Handles 2-lb. to 7-lb. sizes.
Speed — 25 to 30 bags per minute depending on bag size.
Accuracy — Within plus or minus ⅛ oz.

★ PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

PNEUMATIC SCALE CORPORATION, LTD.
71 Newport Avenue, North Quincy, Mass.
Branch Offices:
NEW YORK · CHICAGO · SAN FRANCISCO · LOS ANGELES



2

3

2. Miracle Whip jar filling, capping and labeling room before plastic shields were built. Gear sprockets and other moving parts of feed-conveyors are encased in stainless steel guards. **3.** Stainless steel mirror above the supply bin of the capping machine allows operator to see contents when the bin needs to be refilled without climbing a ladder to look in as formerly was necessary.

in Chicago. In fact, there is much to recommend this industrial unit, overlooking Lake Michigan and the Outer Drive, as a safety man's dream of a model plant.

The appearance of the packaging departments in this plant are glisteningly clean, bright and airy. Spotless and modern are the words for it. When a department is down for the lunch hour, it looks more like a machinery manufacturer's exhibit at a World's Fair than a production unit that was "puttin' out" a few minutes before and will be back at it within an hour.

Not until you talk with Safety Director C. F. Moberg and let him show you through the plant do you appreciate and get a glimpse of the streamlined safety that has been built into their packaging machinery, including, if you please, the brains and mental attitudes of the employees. It is something close to an insult to imply that an unsafe condition exists in the plant.

"If we have an unsafe condition, we'll probably have a report on it before the week's out and the grass won't grow under anybody's feet before it's remedied," said Mr. Moberg.

A new box machine had been uncrated a day or two before I visited the plant and it had undergone as thorough, unsparing cross-examination as any criminal ever got on the witness stand. Production engineers had verbally picked the machine to pieces for defects that might make it unfit for Kraft's particular purpose. Then the safety experts took over and they hadn't missed a bolt or nut.

"Are the exposed parts of this machine apt to cause an accident?"

"Will the operator have to get dangerously close to the point of operation in running it?"

"Are the start and stop buttons conveniently located for emergency starts and stops?"

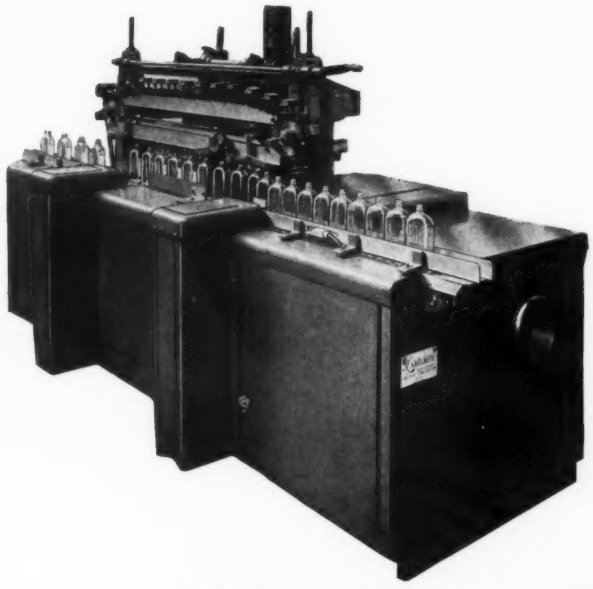
Two or three things were found that the company's own engineers could do to improve the safety of this new box machine and the machine shop got its orders at once. The machine did not go into production until it had been streamlined for safe operation according to Kraft's exacting standards.

You get the feeling that Kraft, in effect, challenges machinery manufacturers to sell them a packaging machine upon which the company cannot make definite improvements from a safety standpoint.

An infinite variety of products—

labeled or sealed by **LABELRITES!**

with perfect register . . . and at Lower Cost . . .



Neither size nor shape of containers offers an obstacle to the smooth, dependable operation of the Labelrite units. Labeling and sealing—or *both* can be done on the same machine.

No glue seepage means no bottle wiping!

That's an important cost-saving feature assured by Labelrites. Change-parts are petty cash, and interchangeable in very few minutes, which means *more* use of the machine. *Get facts,* and you'll get Labelrites!

Write for catalog and savings possible!

NEW JERSEY MACHINE
CORPORATION
1600 Willow Avenue ~ Hoboken, N. J.
CHICAGO OFFICE, 325 WEST HURON STREET
● *Sales and Service Representatives in 12 Industrial Centres* ●

As they came from the factory, the plungers on several Philadelphia Cream Cheese formers left serious pinch points exposed. Company safety experts guarded them all.

The supply bins for Miracle Whip capping machines required operators to climb ladders every few minutes to peer down into the bins to see if more caps were needed. The company's mechanics suspended highly polished stainless steel mirrors from the ceiling above the bins so the operators could make the same check without getting off the floor.

One type of conveyor-feed used formerly brought glass jars to a filling machine upside down. Just short of the machine the jars were turned upright by a woman employee. But a serious finger-pinch hazard was created by the necessity of taking the jars off the conveyor, turning and replacing them, upright. The lips of many jars also could be chipped or cracked on the hand-performed job. Kraft mechanics devised a mechanical jar-turner that gently turns the jars upright just before they are fed into the filling machine. A roof of transparent plastic material has been built over the conveyor belt to cover the jars until they are fed into the filler.

The Miracle Whip filling machines themselves provided another problem that was solved by Kraft's safety department. As the empty jars move into the filler and the vacuum caps come down over them, a defective jar can be broken occasionally. To prevent the scattering of glass and to protect the operator, Kraft's safety department built a protective fencing of tough transparent plastic around that section of the filler where contact is made between the vacuum cap and jar. The plastic in the guard will not chip or splinter and thus eliminates further the possibility of injury.

To correct still another hazard and at the same time improve sanitary conditions in the handling of caramel, this company adapted the steel mill's extruder to candy making. Before the caramel extruder, completely designed and built in Kraft's own shops, was put into use, large pieces of bulk caramel had to be pulled and squeezed to get them down to size for feeding into the caramel forming, cutting and wrapping machinery—a taffy-pull sort of a job on a large scale. This method not only involved a great deal of handling of the bulk caramel, but occasionally the handlers slipped or strained themselves as they tugged at the big bulk pieces. The caramel extruder not only brings the bulk pieces down to size without any hand work whatsoever, but eliminates the hazard of slipping and muscle straining.

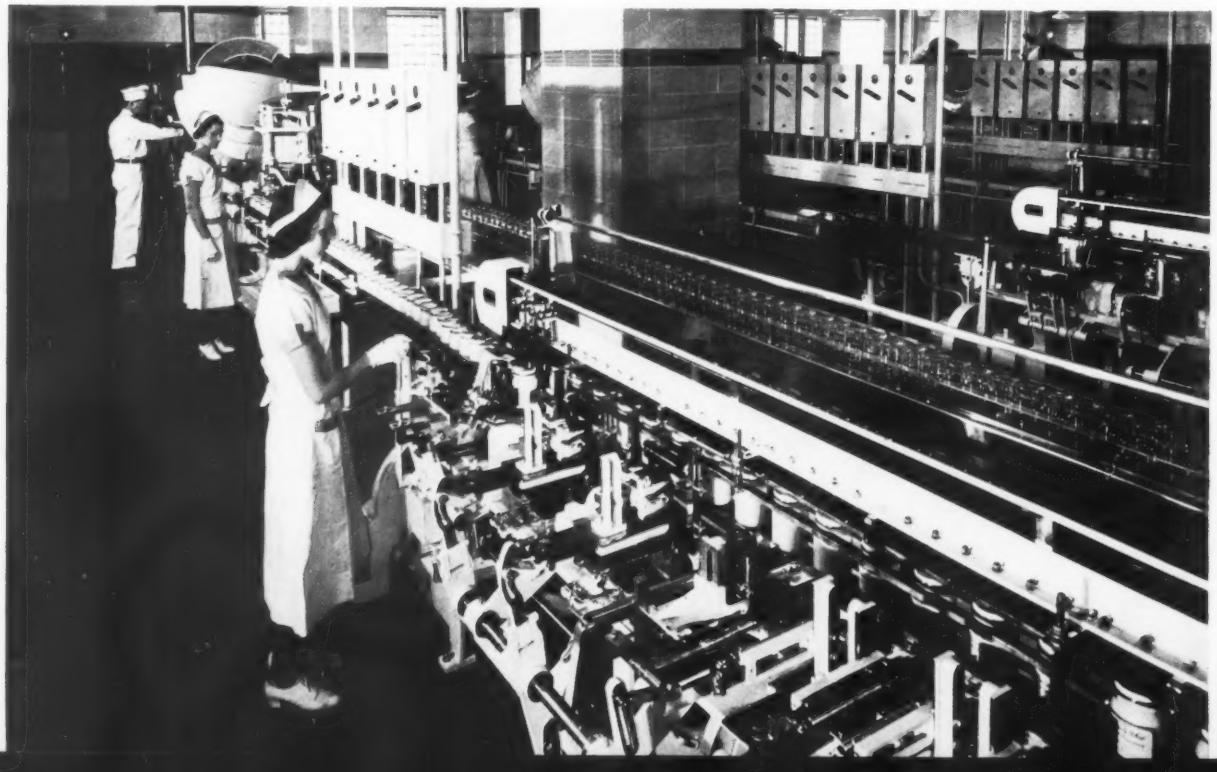
These safety improvements didn't just happen or wait upon the ingenuity of some unsolicited employee suggestion. Kraft's safety program projects the safety idea into everything. An employee suggestion system turns up about 125 suggestions a month for improved safety, better health conditions and increased production efficiency.

Red tape is a thing that causes many industrial safety programs to bog down or never to get started. There's no red tape in this plant. Every foreman must make a once-a-month report on accident hazards in his department. There is a factory safety committee headed by the plant superintendent, which meets regularly.

There is an employee safety committee, with a rotating membership lasting four months. This brings in a new group of members at frequent enough intervals to give everyone on the payroll a taste of responsibility for the success of the safety program.

Then there is the top executive committee, which regularly and enthusiastically considers recommenda-

4. Convenient start and stop buttons at points along entire length of labeling unit make it unnecessary to go to control board (left center) to shut down in case of emergency.



Speedy Packaging!

(above) Bottom stitching corrugated containers on a MORRISON. Operator No. 1 places stitched containers on hooks on overhead conveyor which leads to packing zone.

(left) Top sealing containers. Operator No. 2 slides completed boxes to gravity roller conveyor which leads to trucking zone.

Morrison Stitchers Keep Triple-Quick Time!

Three times faster than hand taping at one-fourth the cost! That's the average record of MORRISON Wire Stitching Machines in the service Warehouse of Thompson Products, Inc., Cleveland, Ohio.

In this department, six different sizes of corrugated shipping containers are used, varying in length and width. Note the efficient methods employed:

1—Bottom stitch the containers. 2—Place on hooks on overhead conveyor which carries containers to packing zone. 3—Place filled containers on gravity roller conveyor which leads to top sealer. 4—Top seal and slide containers to roller conveyor which moves containers to trucking zone.

That's *speedy packaging!* Furthermore, Morrison Stitched containers have pilfer-proof, moisture-proof seals. It all boils down to this:

MORRISON WIRE STITCHERS *make stronger, better containers in less time at least cost!*

SEYBOLD DIVISION • Harris-Seybold-Potter Co.
843 WASHINGTON STREET • • • • DAYTON, OHIO

SEYBOLD SALES AND SERVICE:

New York City: **E. P. Lawson Co., Inc., 426-438 West 33rd Street**
Chicago: **Chas. N. Stevens Co., Inc., 110-116 West Harrison Street**
Southern Sales District, Atlanta, Georgia: **Harris-Seybold-Potter Co., 120 Spring St., N.W.**
Central Sales District, Dayton, Ohio: **843 Washington Street**
San Francisco, Los Angeles, Seattle: **Harry W. Brintnall Company**
Toronto, Montreal: **Harris-Seybold-Potter (Canada) Ltd.**

MORRISON *Wire Stitching* **MACHINES**

tions for safety projects that call for large expenditures or might affect company policy. In outline, this set-up seems like a committee structure pregnant with probability for much red tape and buck-passing. But insurance against red tape is provided by an inspector with the rank of foreman whose full time assignment is safety. This safety inspector must turn in a report once a week on a complete plant safety inspection.

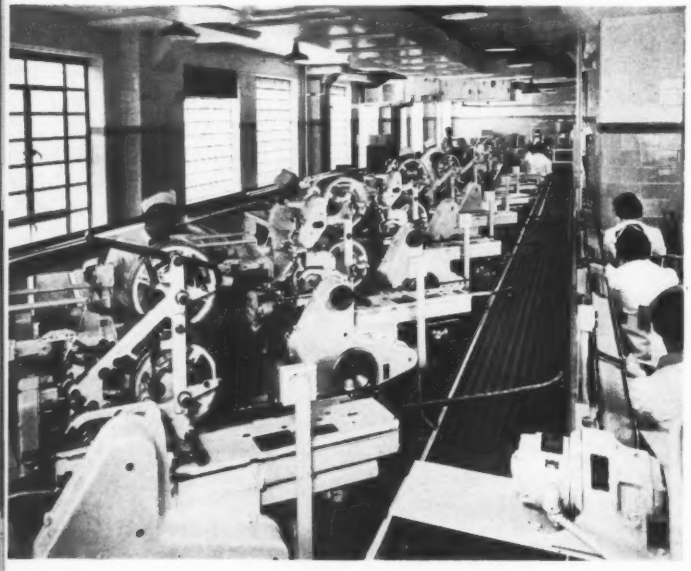
The inspector talks with production foremen as he makes his rounds. He talks with employees. He makes his own inspection of equipment. The monthly reports of foremen go first to this inspector for his recommendations. When a safety idea turns up, from no matter what source, the inspector stays right on top of it until it is adopted and put into use or discarded with diplomatic explanation to the person who originated it.

Worth-while ideas which the inspector gleans from the reports of foremen are submitted to the factory safety committee, which approves or disapproves. If the factory committee approves an idea, orders for action are issued and the safety inspector picks it up again to see that the orders are carried out with dispatch. If the factory committee approves an idea that calls for a sizable expenditure, the recommendation goes to the plant safety directors and, if he concurs, it is forwarded to the executive committee.

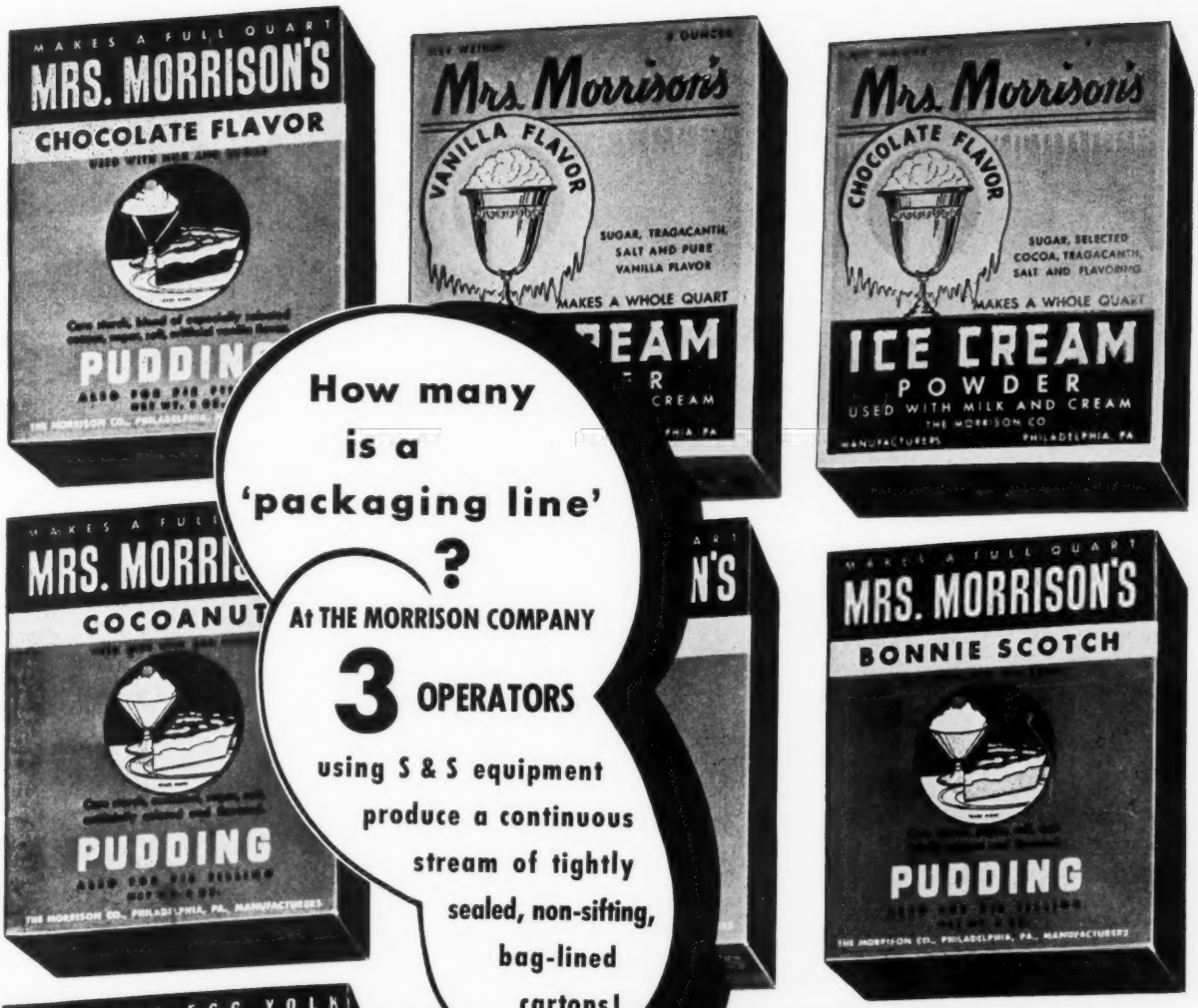
All the while the full-time safety inspector rides hard on the idea to see that it doesn't get pigeon-holed or suffer a pocket veto somewhere along the line.

"As a result of the way our safety organization operates," said Mr. Moberg, "everything that needs guarding is guarded and there are a few places where protection has been provided just on the off chance that something might, though probably won't, happen."

In spite of the company's thorough machine guarding program it still might seem to the outsider that automatic machinery would cause the most accident trouble. Well, let's see. During 1940 at least 65 per cent of employees in the plant were engaged in machine operations. Yet, during this period, there were only 25 accidents and of these, only four resulted in lost time. (According to the company's standards, any mishap that calls for first-aid (*Continued on page 116*)



5. Battery of caramel wrapping machines. Girls pack caramels as they come off conveyor after passing inspection. **6.** Cream cheese wrapping and boxing operations. Notice guards around power transmission units. Employees are well removed from machine operation; packages are ejected automatically within easy reach of work table.

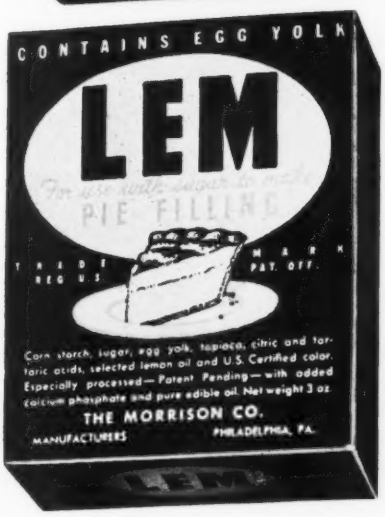


How many is a 'packaging line'?

At THE MORRISON COMPANY

3 OPERATORS

using S & S equipment produce a continuous stream of tightly sealed, non-sifting, bag-lined cartons!


CONTAINS EGG YOLK
LEM
PIE FILLING
TRADE MARK REG U.S. PAT. OFF.
Corn starch, sugar, egg yolk, tapioca, citric and tartaric acids, selected lemon oil and U.S. Certified color. Especially processed — Patent Pending — with added calcium phosphate and pure edible oil. Net weight 3 oz.
THE MORRISON CO.
MANUFACTURERS PHILADELPHIA, PA.

FILLING-SEALING
PACKAGING EQUIPMENT
Speeds to Suit Your Needs

STOKES & SMITH Co

Packaging Machinery — Paper Box Making Machinery

FRANKFORD PHILA., PA.

The cartons are hand fed to the carton sealer, which seals the bottom flaps and carries them to the Universal Fillers. There attendants fill the bags and place them in the conveyed cartons, which then move on to the Sealer. There the open top of the bag is automatically sealed and the packages are conveyed under pressure to the shipping table.

Similar semi-automatic or fully automatic Stokes & Smith equipment with automatic carton feed, bag inserting and automatic filling, for the production of sixty packages per minute is also available. An S & S Packaging Engineer will gladly suggest the proper equipment for your particular needs. Write for information.

EQUIPMENT and MATERIALS

ILLUMINATED MAGNIFYING GLASS

Intended for visual inspection for flaws in materials in process is the "Illumo" illuminated magnifying glass, distributed nationally by Sellstrom Manufacturing Co. Available with double or triple power lens, housing and handle of Dowmetal, the total weight is 17 oz. On the face of the housing are sockets for a pair of electric lamps. Equipped with toggle switch, extension cord and plug.

FACILITIES FOR DEFENSE

Operating at a rate two and one-half times normal output, Package Machinery Co. has turned over its entire manufacturing facilities to defense production, building machines for the manufacture of small arms munitions. Typical of the determination of many concerns to supply their regular trade during the emergency is an announcement sent by this company to its customers: "We shall continue to do defense work while the need exists, but have arranged to take care of our deliveries to customers at the same time. We can promise that the sign 'Deliveries As Usual' will shortly be displayed. We are still in the wrapping machine business and intend to serve you as well as we have in the past."

RIP-CORD CLOSURE

Fidelity Machine Co. announces a "Rip-Cord Closure," an entirely new method of closing fabric bags so that they can be opened quickly, easily, without tools and without injury to the bag. Sewing head on an automatic conveyor, into which the unfilled bags are fed, is accurately synchronized with the speed of the sewing machine. Bags are automatically counted. Ends of the "Rip-Cords" are trimmed by an automatic cutter with three to five inches allowed to serve as hand hold for opening. Advantage claimed is speed as high as 1,000 bags per hour. Attaching of labels is permitted during operation.

PRINTING INK EFFECTS

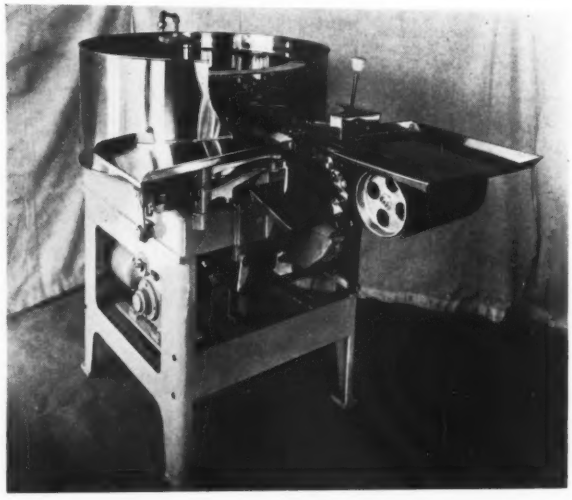
Packagers who are facing probability of changing to other types of paper materials, etc., will be interested in studying effects of printing inks on four different kinds of paper stock as shown by the Sigmund Ullman Co.'s new booklet, "Ess Yew Inks."

CONVEYOR TUBES

"Wings of Business" is a booklet describing and illustrating Lamson Conveyor tubes as used in various types of business. It contains 16 pages with cover, carries more than 60 illustrations and refers to more than 30 different lines of industry.

AMPOULE WASHER

Ampoule washing is an out-of-the-ordinary operation, customarily accomplished by hand methods. However, The Lakso Co. has developed a machine which has passed the test stage and is in successful operation. This equipment, it is claimed, will handle ampoules from one to 10-cc. capacity at a speed of 75 per minute, subjecting each ampoule to a long and varied washing cycle composed of distilled waters, steam and air.



CHRISTMAS MATERIALS

"What's In It For You?" is the title of a new du Pont booklet illustrating materials available for Christmas packaging. Profusely illustrated with suggestions pertinent to holiday wraps, the value of such packaging is supported by results of a widely circulated questionnaire.

A Pledge to Users of NATIONAL *Products*

THE WHEELS of American industry would turn but slowly if a steady flow of the proper adhesives were not forthcoming.

With this in mind, we assure our customers that the general policy of this company — of safeguarding the quality and the normal supply of our products — remains unchanged.

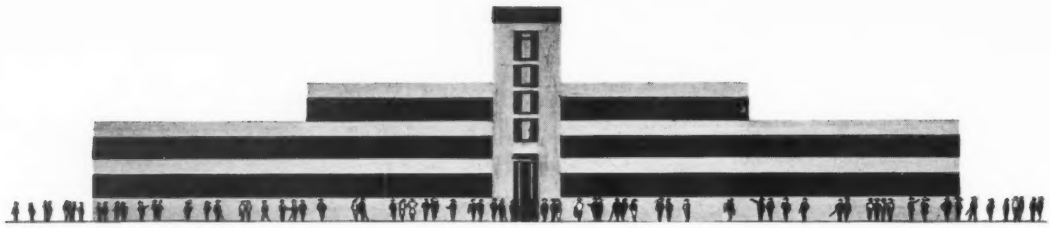
Our organization is focusing its entire attention on the fulfillment of this obligation to you.

We ask your cooperation in limiting your orders to normal quantities, and in affording us as much time as possible for the execution of your orders. We'll do our part!

NATIONAL ADHESIVES

DIVISION OF

NATIONAL STARCH PRODUCTS INC.



PLANTS and PEOPLE

Alvan J. Crist, Secretary of the Cooper Paper Box Corp., died at his home, Buffalo, N. Y., July 29, after a six months' illness.

Since August 1, all metal and molded caps and sealing equipment formerly produced at the Anchor Hocking Glass Corp.'s Closure Division Plant at Long Island City, N. Y., have been produced at the company's Connellsville, Pa., plant. This new plant is a one-story, modern, daylight, fireproof factory, considered one of the best equipped of its kind in the country.

WALTER R. LEACH

Walter R. Leach, Secretary and General Manager of the Carr-Lowrey Glass Co. and a nationally known figure in the glass industry, died August 3, at his home, Chela Farms, Phoenix, Baltimore County, Md., after a short illness. Mr. Leach entered the employ of the Carr-Lowrey Glass Co. when he was 15 years old. He became General Manager in 1914 and Secretary in 1917. He was a member of the Standardization and Tariff Committees of the Glass Container Assn.

The Ace Carton Corp., Cicero, Ill., has contracted with the Clearing Industrial District for a new windowless plant to be located in Clearing's newly developed 51st Street Section. The new plant will contain 92,000 sq. ft. of floor space and is to be situated on the northwest corner of 51st St. and Menard Ave., Chicago. The new plant will be sealed from outside conditions with air conditioning and humidity control and there will be fluorescent lighting throughout. The plant, when finished, will represent a year's survey by the Ace Carton Corp. of the latest features developed by the carton industry in plant design and processing. Completion is expected by November 1.

Officers of the corporation are Ace Fessenden, President; M. G. Fessenden, Treasurer; M. S. Lambert, Vice President; R. E. Farrar, Vice President; Emory J. Smith, Secretary, and Roger R. Wilterding, Art Director and Merchandising Counselor.

As of July 31, 1941, American Coating Mills, Inc., acquired complete ownership of the Chicago Label & Box Corp., Chicago, Ill. The latter will continue to operate under its own name and under the same management.

E. J. O'Connor, Manager of Sales, General Line, of the Continental Can Co., announces the following changes in the General Line Sales Division of the company: G. E. DuCharme, Acting Local Sales Manager of the Jersey City Sales territory with A. Agel as his assistant; J. I. Donahue, Assistant Local Sales Manager with headquarters at Baltimore; J. H. Bebee, Assistant Local Sales Manager with headquarters at Wheeling; R. H. Cotter, Local Sales Manager with headquarters at St. Paul, Minn.; W. B. Larkin, Local Sales Manager with headquarters at Milwaukee; W. A. Rooney, Assistant Local Sales Manager with headquarters at Tulsa, Okla.; R. W. Franz, Assistant Local Sales Manager with headquarters at Cincinnati.

Changes in personnel and offices in the Chain Belt Co., Milwaukee, Wisc., are: W. B. Marshall, former Assistant Sales Manager of the Conveying and Engineering Products Division of the company, is now Sales Manager of that division. B. E. Sivyer, former San Francisco Branch Manager, is now Assistant Sales Manager of the Chain Belt and Transmission Division. Replacing Mr. Sivyer as Branch Manager at San Francisco is S. Y. Warner, formerly of the Los Angeles office.

In a recent circular letter, Ferdinand Gutmann & Co. told its clientele in New England of its policy in regard to keeping jobs open for members of its organization who have been called to active service. The company writes in part: "Our representative, John E. O'Neill, has been called from Reserve to active duty as a Second Lieutenant in the United States Army beginning August 20. It is our policy as far as possible to keep the job open for those who have been called to the Colors. In the case of a salesman, keeping the job open is not enough. It also means keeping up the contact with the customers. We have, therefore, asked Mrs. O'Neill to take over her husband's work. . . . Any cooperation that you can give her will be greatly appreciated."

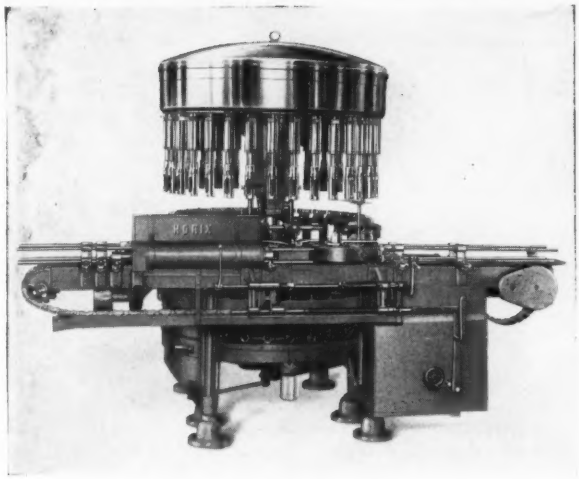
The Exact Weight Scale Co. celebrates its silver jubilee this year. Twenty-five years ago Walter Standish Smith, originator of pre-determined weighing and winner last year of the National Assn. of Manufacturers Pioneer Award, started the industry. From four or five simple weighing models the Exact Weight Scale Co. has expanded to several hundred models.

Vick Chemical Co. has purchased financial control of the Alfred D. McKelvy Co., maker of Seaforth for Men toiletries line. Alfred D. McKelvy, originator of the line, will remain President of the company.

On August 1, Robert Gair Co., Inc., acquired the property and business of the Buffalo Division, American Box Boards Co., Inc., which will be operated as the Fort Niagara Corrugated Box Division, Robert Gair Co., Inc., North Tonawanda, N. Y.

NEWLY ACQUIRED PLANT OF ROBERT GAIR CO., INC.

BUILT TO LAST . . . *the Duration*



Buy HORIX Fully-Automatic High Speed Fillers for years of efficient service

DUE to the growing scarcity of many materials, all types of packaging equipment, including filling machines, are becoming increasingly difficult to obtain. In view of this situation, every packer of still liquids should carefully analyze his filling machine requirements, making sure that any equipment bought will efficiently meet his future needs.

The filler you buy today must last you for years to come until normal conditions prevail again. Buy the best filler possible—get the production that the busy times ahead will require. Buy a rugged, dependable Horix High Speed Automatic Filler. Not only will it operate efficiently, but it will give you maximum production with minimum labor costs. The money you invest today for a Horix Filler will still be working for you tomorrow.

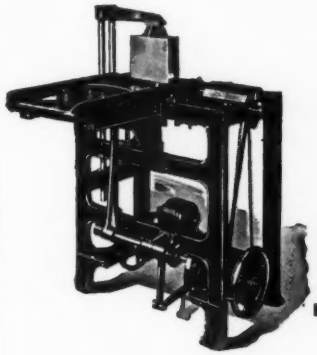
Horix Fully Automatic Fillers are made for filling cans and all sizes of bottles up to and including gallon jugs at speeds up to 150 quarts or 50 gallons a minute. Your inquiries should describe product to be filled, style of container and production desired.

HORIX MANUFACTURING CO. PITTSBURGH, PENNA.

CONVEYORS *and* FILLERS

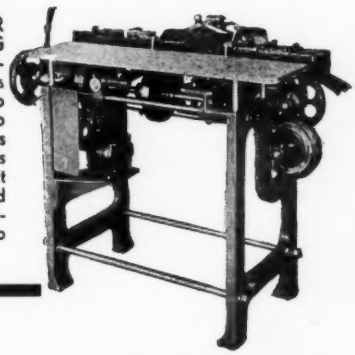
Why do so many companies *...use these Peters Machines?*

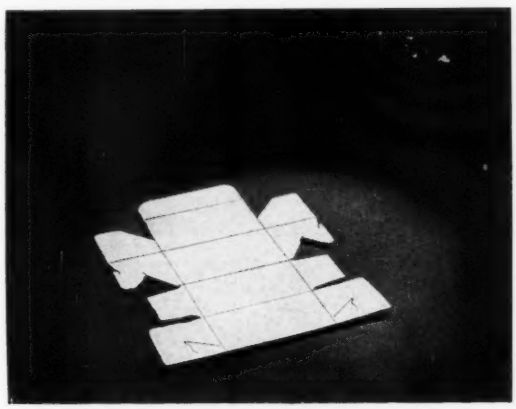
Being interested in reducing their carton packaging cost and stepping up their production, they find these machines the answer to their problems.



The PETERS JUNIOR CARTON FORMING AND LINING MACHINE sets up the cartons at speeds up to 40 per minute, requiring only one operator. The cartons and sheet liners are fed into the machine which sets them up and drops them onto the conveyor belt where they are carried to be filled. Can be made adjustable.

The PETERS JUNIOR CARTON FOLDING AND CLOSING MACHINE automatically closes the cartons at speeds up to 40 per minute, requiring no operator. After the cartons are filled, they enter this machine on conveyor belt as open, filled cartons and leave the machine completely closed. Can also be made adjustable.





Type of die cut cartons handled on this equipment.

Send a sample of each size carton you are interested in handling and we will promptly recommend machines to meet requirements.

PETERS MACHINERY COMPANY
GENERAL OFFICE AND FACTORY
4700 RAVENSWOOD AVENUE, CHICAGO, ILL.

from here and there

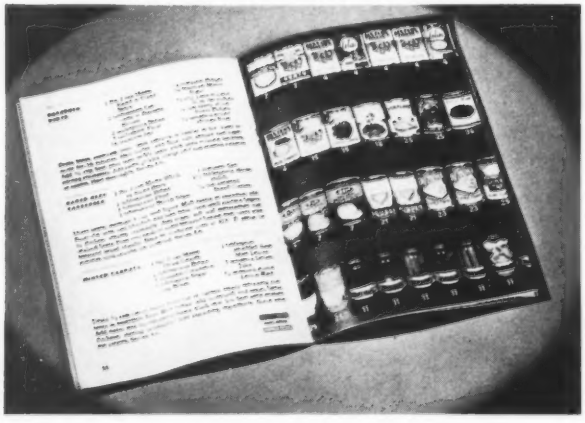
A committee from the Packaging Institute met with N. A. McKenna of the Division of Production, OPM, in Washington, August 21, to discuss packaging problems. Members of the committee were Roy W. Peet, Colgate-Palmolive Peet Co.; Sheldon Fox, Merck & Co., Inc.; J. Van Allen Clark, Allied Products, Inc., and William M.Bristol, Jr., Bristol-Myers Co. This committee was appointed at a special meeting of the Packaging Institute attended by 38 members representing 33 companies. At the special meeting, Walton Lynch, National Folding Box Co., presented a report on the work done by the Folding Box Assn. and the Set-up Box Assn. in an effort to indicate potential economies that could be made in the distribution of cardboard to civilian industries.

"A. B. C. of the Wool Products Labeling Act of 1939" by Jacob S. Spiro, member of the New York and New Jersey bar, has recently been published by Legal Reviews, New York City. The pamphlet contains the text of the law, rules of the Federal Trade Commission and explanatory material. The wool labeling act went into effect July 14.

To promote State of Maine Canned Foods, the Maine Development Commission, in cooperation with various interested state associations, has dedicated a 64-page booklet to "The Thousands of vacationists who come to enjoy Maine's famous recreational facilities each year and take away with them also a long-lasting respect for our good Maine foods." Called "121 Tested Recipes made with Famous State of Maine Canned Foods," the booklet is a combination recipe and directory of Maine Canned foods to make it easy for "these friends" to find them in local markets. It is profusely illustrated with color photographs containing hundreds of package illustrations so that the reader will be able to recognize the labels quickly in the local markets. Lithography by Polygraphic Co. of America.

That the next step in color photography would be a simple and practical method of making color prints and enlargements was predicted in the 1939 Packaging Catalog (page 60). It's here! Eastman Kodak Co. has announced a new process known as "Kotavachrome Professional Prints" which can be made from Kodachrome professional film transparencies in sizes from 8 by 10 to 30 by 40 inches. The maximum enlargement from any transparency is limited to six diameters. Announced at the same time are moderately priced Kodak Minicolor Prints from 35 mm. and bantam size Kodachrome transparencies. These enlargements are from two to five diameters.

COLOR ILLUSTRATIONS IN STATE OF MAINE CANNED FOOD RECIPE BOOK POPULARIZE MAINE BRANDS



The Harvard Bureau of Business Research has just published two reports giving detailed figures on retail distribution costs for 1940. The first of these presents typical margins, expenses and profits for department and specialty stores. The second bulletin gives similar data for limited-price variety chains.

Although national defense makes the headlines these days, it does not necessarily follow that investigations by federal bureaus are not continuing on a "business as usual" schedule. This is indicated by a complaint issued by the Federal Trade Commission, charging the National Association of Sanitary Milk Bottle Closure Manufacturers with carrying out combinations and agreements for fixing and maintaining prices, and other practices in restraint of trade. The F. T. C. reports 1,575 applications for complaints during July and 868 "complaints pending, docketed or disposed of in the same month."

The plastics department of the General Electric Co., Pittsfield, Mass., has prepared a 64-page illustrated booklet telling how Textolite plastics are made. The pamphlet covers each step from raw materials to the finished products and indicates the variety of applications for different types of Textolite.

In compliance with requests from representatives of both carriers and the produce trade, the U. S. Department of Agriculture has set up proposed U. S. specifications for the classification of damaged or repaired packages of fresh fruits and vegetables. The tentative specifications, issued by the Agricultural Marketing Service, are proposed for use throughout the country in determining whether or not such packages are damaged, and, if so, whether the damage is of a character and degree that the consignee is entitled to claim damages. It is the intention to use them for a trial period of four months.

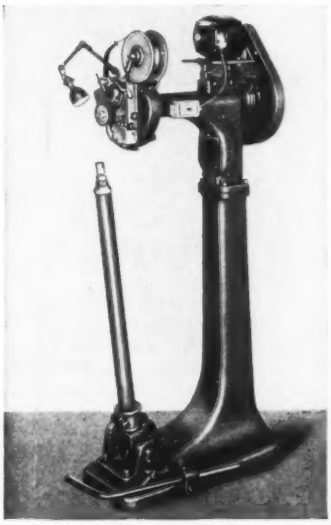
"Testing Displays in Use" is the title of a booklet issued by the Point of Purchase Advertising Institute, Inc., outlining a plan which this organization is offering to test manufacturers' displays under actual field conditions. At present this service is offered free to manufacturers.

Wyomissing Glazed Paper Co. has set a high standard for paper company catalogs with its new sample book, No. 40, for flint glazed paper. Inside its plastic covers, the reader finds the complete range of colors by means of thumb-nail guides for each group of colors. Opened to a guide page, the book reveals all shades in a particular color range at a glance by means of a vertical arrangement of various-sized pages. In the front of the book is a page of "pressroom tips" on how to obtain best printing results from the papers.

Two more studies in the Eagle Printing Ink Co. series have recently been completed covering color in direct mail and color in advertising.

FOR HEAVY DUTY BOTTOM STITCHING

When wire stitching the thicker, stronger types of shipping containers, designed to carry and protect heavy loads, shippers prefer the

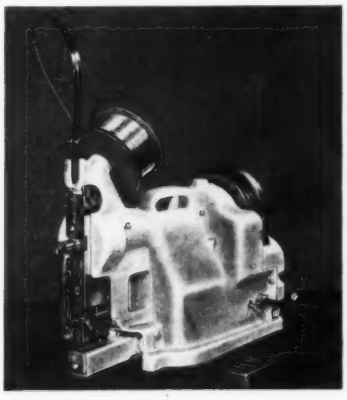


BLISS HEAVY DUTY BOTTOM STITCHER

Because of the heavy wire used for this type of box, only the best and most durable materials will stand the wear and tear. The BLISS Stitcher Head is specially adapted to this heavy duty. Hardened tool steel for cutting, forming, driving and other moving parts—long bearing surfaces for former slides, extra large working surfaces on cams—specially hardened knives, and heavy construction throughout, make it the most durable and dependable stitcher. Operates at highest speeds—extra wide clearance between stitcher head and post—only one adjustment for length of stitch.

FOR WIRE STITCHING FILLED BAGS

The BOSTON BENCH STITCHER stitches filled bags, articles to cards, small boxes and similar work. Operates on lighting current, and is readily movable. It is often more convenient to bring this stitcher to the work, rather than carry the work to the stitcher.



Has 4" throat length and uses No. 25 to No. 30 round wire. 3/8" or 1/2" crown.

ASK FOR LITERATURE ON THESE STITCHERS

DEXTER FOLDER COMPANY

330 West 42nd St., New York

Chicago, 117 W. Harrison St. Dallas, J. F. Carter, Philadelphia, 5th & Chestnut Sts.
Boston, 185 Summer St. 5241 Bonita Ave. Cincinnati, 3441 St. Johns Place

MODERN CONTAINERS WITH MODERN ADVANTAGES—

There's plenty of appeal in CELLUPLASTIC containers . . . appeal that registers in merchandising. Limitless choice of rich, lustrous colors; streamlined, featherlite, integrally labeled beauty PLUS greater safety and protection afforded *only* by shatterproof Celluplastic!

SEAMLESS • SHATTERPROOF • FEATHERLITE

COLORFUL • PROCESS-LABELED in manufacture

Why not have our Design Department submit a suggestion incorporating every appeal available in Celluplastic containers? They are *economical* as well as modern!

Send for Samples—SEE for Yourself!

CELLUPLASTIC CORPORATION

FIRST IN CELLUPLASTICS
HYCOLOID—CLEARSITE

Executive offices and plant
50 Avenue L, Newark, N. J.

New York Display Offices
626 Fifth Avenue

Current Defense Developments

"Armament production is suddenly to become a full-time and not simply a part-time job for the nation. Until now, defense orders have fitted easily into spare time and served to create a prosperity enjoyed by all. If we are to approach even Canada's war-production rate, we will make large sacrifices. If we are to realize our anticipated schedules, the Government must exercise wider controls. Toward this end: (1) Priorities supplant normal supply sources. (2) Rationing supersedes competitive selling. (3) Price controls replace normal marketing methods." Thus succinctly Dr. Howard T. Hovde, Wharton School of Commerce & Finance, reminded the Sales Executives Club of New York that the nation certainly has not yet struck its stride in defense production. The perfectly natural conflict between OPM and OPACS has yet to be ironed out satisfactorily. Business continues to look to its usual sources of supply and consumers haven't yet begun to realize that they will be called on to make real sacrifices.

PAPER SHORTAGE LOOMS

When more than 140 representatives of newspapers, magazines, book publishers and the printing industry met with OPM officials in Washington late in July, they were served with a flat warning that the paper and pulp industry had only begun to feel the shortage in materials. Stacy May, OPM's Bureau of Research and Statistics chief, told the printers and publishers that "we must all be indicted for a lack of imagination as to what the $60,000,000,000 defense drive entails." No nation, he said, has been able to go into such a drive and keep business going as in the past.

The paper and pulp industry, which has already voluntarily reduced its use of chlorine by 10 per cent, must make another reduction of 30 per cent immediately, the group was told.

The supply of railroad cars which can be allotted to the transportation of supplies for the industry will probably be reduced according to James Adams of OPM.

Nominations have been completed for three subcommittees representing primary manufacturers of paper and pulp, converters, printers and publishers to act in an advisory capacity for the industry.

Bag manufacturers and solid fibre container converters are faced with a rising demand in the face of peak capacity and unfilled orders reaching new levels.

The Surplus Marketing Administration, acting as the food supplier for Great Britain under Lend-Lease, immediately desires a quantity of solid fibre containers estimated to represent between 35 and 50 per cent of the industry's monthly capacity.

No let-up in the above-mentioned difficulties appears likely in the immediate future and, according to some government officials, a study is in order to determine whether Priorities are needed.

Deliveries to container manufacturers are slow, below orders in the face of a rising demand. In view of this genuine demand, it is possible that some action will be taken to provide additional capacity.

The fact that the commercial wooden box industry is reported to have from 20 to 30 per cent of capacity which could be utilized is offset by the fact that if sudden large demands were made upon the industry, it is possible a temporary shortage of box lumber would result as well as a shortage of experienced workers.

CONTROL OF RUBBER

Priorities control of rubber reduced July consumption to about 67,000 tons as compared with 84,000 tons in June. New orders are designed to cut consumption to 50,000 tons per month by December.

Controls have somewhat relaxed in the case of small processors in order to avoid sudden unemployment and prevent hardships among smaller firms. Larger processors, representing about 90 per cent of the total consumption, are being held to the consumption cuts as required by April regulations.

ALUMINUM AND METALS

The tension is somewhat eased. Both the Aluminum Co. of America and Reynolds Metals Co. announce increased production of this material.

OPACS has issued an allocation program giving tinplate and zinc oxide needed for cans preference over other civilian demands to guard against the possibility of a shortage required for the current food crop. Manufacturers were told here that iron and steel shortages may compel OPACS to place restrictions on the use of cans for non-essential purposes. No present shortage of tinplate or zinc oxide exists; steps are being taken so that none will be created by defense demands and defense Priorities while the current crop is being processed and to avoid danger of appreciable spoilage of perishable food.

CHLORINE ORDERS

Chlorine was placed under full Priority control July 28 in a General Preference Order signed by E. R. Stettinius, Jr., Director of Priorities, OPM. Order requires defense orders for chlorine be filled ahead of non-defense contracts and also stipulates that producers must accept defense orders in preference to non-defense calls. Meanwhile, manufacturers are free to make other deliveries if they have sufficient capacity to do so after meeting defense orders. All defense orders which do not bear a higher preference rating are assigned to a rating of A-10. Newsprint will be unaffected. Restrictions (now voluntarily cut 10 per cent and a further 30 per cent contemplated) will affect the coloring of writing papers, gloss and other papers for magazines and high grade paper for books. First 10 per cent cut will result in a difference of about 5 per cent in paper shadings, it is estimated.

MACHINERY AND TOOLS

Controls are tightening on machinery and cutting tools. Manufacturers of cutting tools have been granted a limited blanket preference rating for defense orders only. The order covers materials and production of cutting tools, whereas a previous order also covered the distribution of finished tools.

TRAINING COURSES FOR EXECUTIVES

The Priorities Division of OPM announces a series of training courses for business and industrial Priorities specialists to be held during the next several months. Meetings are open to officials appointed by companies or trade groups.

HOW TO GET INTO DEFENSE WORK

Small manufacturers have been puzzled by inconsistency of Knudsen's injunction to sub-contract for defense production as compared with Army and Navy buying organizations' insistence on sticking to large suppliers. Hence the widespread interest in OPM's "Defense Production Clinics." The "National Defense Production Clinic" will be conducted in the Grand Central Palace, New York City, September 22, 23 and 24. Write to OPM, Washington, D. C., for informational folder.

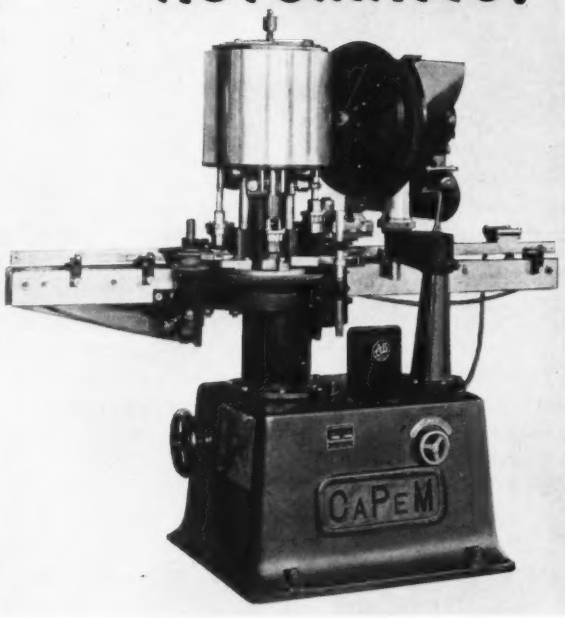
"How To Sell To The Government for Civilian Needs" is the title of a new pamphlet issued by the U. S. Department of Commerce. Obtain your free copy by addressing Bureau of Foreign and Domestic Commerce, Washington, D. C.

RUMORS OF SUBSTITUTES

Compressed wood pulp is being used as a substitute material to take the place of cork, porcelain and iron; manufactured by Service Industries, Inc., 2019 Calumet Ave., Chicago. No reports available as yet as to actual application for packaging purposes of this substitute.

U. S. Department of Agriculture chemists predict that soybean protein will be developed to replace milk casein for paper sizing.

COMPLETELY AUTOMATIC!



The automatic features of CAPEM screw capping equipment are important factors in speeding up production in the defense efforts. For CAPEM machines are operating on a wide variety of food and drug products from salad dressing to aspirin.

Packaging has an important part in the defense program, and we are proud of the role we are called upon to play. Consolidated equipment, with its labor-saving features, is not only speeding up production but, at the same time, it is releasing packaging operators for other work.

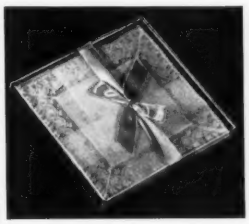
A considerable part of our productive capacity is now devoted exclusively to primary defense work for the Ordnance Department. As a result, it has been impossible to produce machines for some of our good customers as fast as we would like. Our plant is operating on a 24-hour schedule, and every effort is being made to expedite orders now on our books.

We ask, therefore, that users of Consolidated equipment bear with us thru this emergency with the definite assurance that every effort is being made to resume prompt delivery of Consolidated machines at the earliest possible moment.

CONSOLIDATED
PACKAGING MACHINERY CORP.
1400 WEST AVENUE BUFFALO, N. Y.

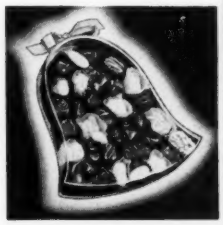
SHOWBOX ...closest thing to a guarantee of MORE PROFITS!

Foremost in the mind of *every* buyer of a new package is the thought: "It's nice, but will it *sell?*" SHOWBOXES *do!* Our files are filled with success stories of what this rigid, perfectly-transparent acetate package does . . . steps up turn-over almost unbelievably, increases profits accordingly. Let us—without obligation—submit a special SHOWBOX design to *you.* It will be as beautiful as any you ever saw, yes; but in addition, *it will SELL!*



SHOWBOXES create impulse buying!

☆



Send us your product today, **EXPRESS COLLECT, WE'LL DESIGN A SPECIAL SHOWBOX FOR YOU, WITHOUT COST OR OBLIGATION**

SHOWBOX

DIVISION OF CENTRAL STATES PAPER & BAG CO.

2600 N. BROADWAY, ST. LOUIS, MO.

CHICAGO • DETROIT • NEW YORK

ENCLOSE THIS COUPON
(When sending your product or package express collect)

SHOWBOX, Division of Central States Paper & Bag Co.
2600 N. Broadway, St. Louis, Mo.

Gentlemen: Without obligation please design and submit a sample SHOWBOX for the accompanying product.

NAME.....

FIRM.....

STREET.....

CITY.....

M.P. 9-1

Simplification as Defense Aid

(*Continued from page 43*) retailers' supply expenses and, in some cases, higher costs for the manufacturers.

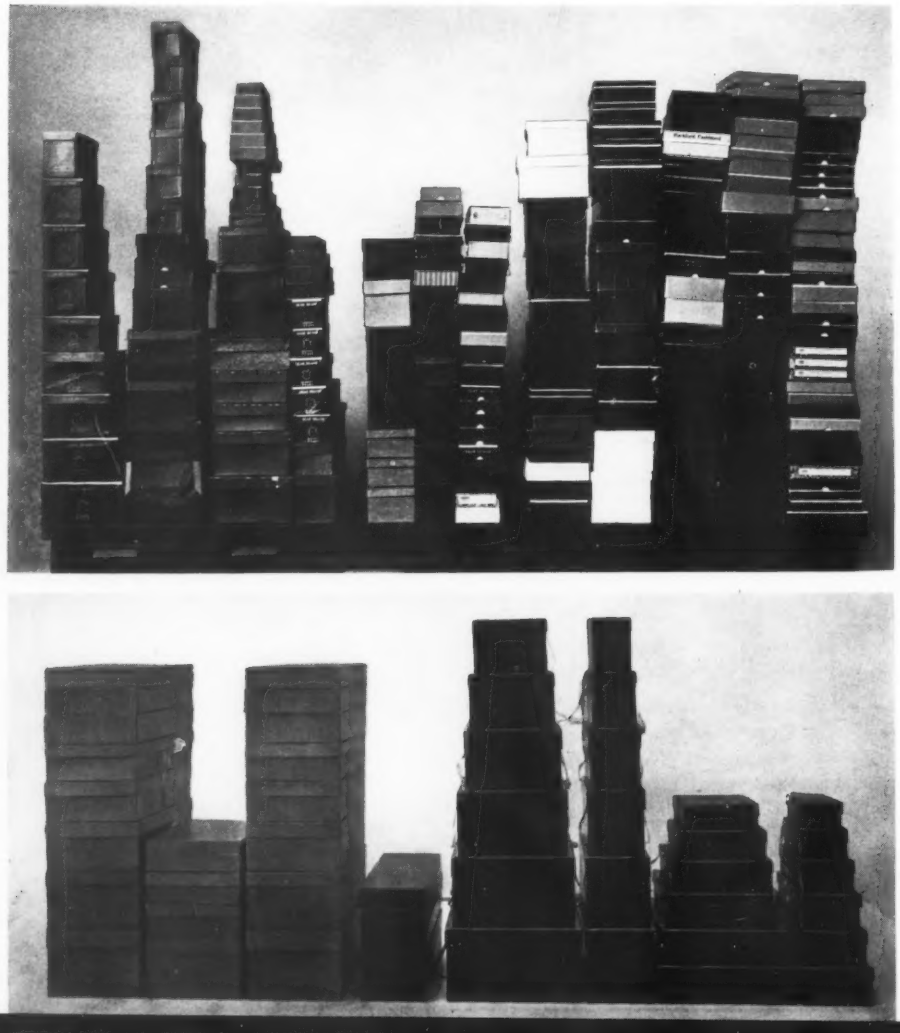
To provide basic data for a proposed revision of these four Simplified Practice Recommendations the Standing Committees decided further that a survey of department and specialty stores, similar to the survey in 1939, should be undertaken. This survey, started in 1938, covered the purchases of packing and wrapping supplies during the calendar year 1937. As in 1929, the survey was made jointly by the Division of Simplified Practice and committees appointed by the Store Management Group of the National Retail Dry Goods Assn. in collaboration with the Standing Committees in charge of these four Simplified Practice Recommendations. The results obtained and the simplification effected are significant. For instance, the survey showed that 2,849 sizes of set-up boxes were being used. The revised Simplified Practice Recommendation for Set-up Boxes (R126-41) carried a list of 75 sizes only, representing a reduction of 97 per cent.

There were 683 sizes of folding boxes reported and the revised Simplified Practice Recommendation (R127-41) carries only 23 sizes, a reduction of 96.5 per cent. According to the results of the survey, 52 per cent of the total annual consumption of folding boxes by the department and specialty stores was concentrated on only nine of the 683 sizes reported.

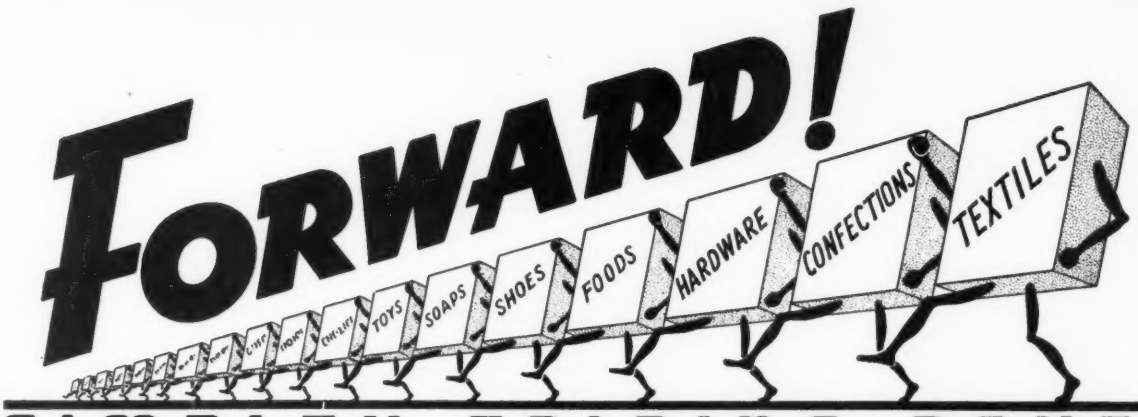
The 61 standard sizes for corrugated fibre boxes as listed in the revised Simplified Practice Recommendation (R128-41) represent a reduction of 93 per cent from the 889 sizes used by the 128 stores that reported in the survey. The selection of the sizes in the revised schedule was made, in part, on the basis of observed quantity-use and, in part, on a basis of providing a sufficient range of sizes for all uses. Store practice, as reflected in the survey, indicated that between 7 and 20 box sizes would satisfy normal store requirements.

The 22 standard sizes of paper bags listed in the revised Simplified Practice Recommendation (R129-41) represent a reduction of 94 per cent from the 343 sizes reported by the 179 stores that replied in connection with the current survey. Seventeen of the sizes listed in the original recommendation promulgated in 1931 were retained in the revised list of recommended standard sizes, the selection of which was made, in part, on the basis of observed quantity use, in part, on a basis of providing a sufficient range of sizes for all uses. Of the total bag consumption, 86 per cent was concentrated in 15 of the 343 sizes reported.

The National Retail Dry Good Assn. stated through its Store Management Group that major economies for all concerned will undoubtedly result from the adoption of, and close adherence to, these recommended stand-



Here are two "before"-and-"after" pictures, illustrating the effectiveness and orderliness of simplification. The "before" simplification picture shows the great variety in types and dimensions of hosiery boxes in use. The "after" picture shows the standard boxes adopted by the hosiery manufacturers some years ago. Pictures were taken for a study made by E. M. Schenke.



SIMPLEX FOLDING BOXES

IF YOU CANNOT IMPROVE THE PRODUCT —

IMPROVE THE CARTON

WHATEVER YOUR PRODUCT . . . Whatever your problems, a suitable one or two piece SIMPLEX box is made to meet your requirements. That is why leading firms in the textile, toy, food, and almost every other industry choose — above all others — SIMPLEX TRADE-MARK BOXES.

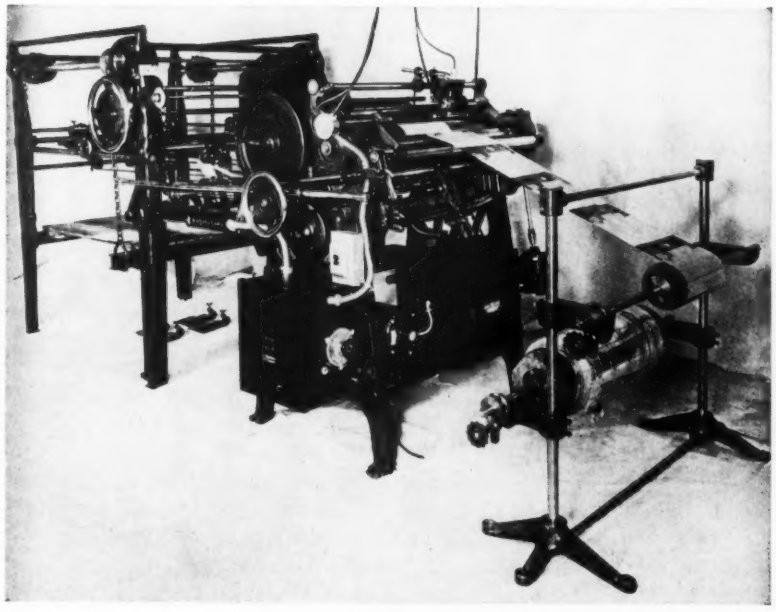
UNIFORM
— in public favor
— in quality
— in manufacture

"SIMPLEX" SAVES
Time — Quickly erected
Investment — No machinery to erect
Product — Strong and rigid

SIMPLEX PAPER BOX CORPORATION
LANCASTER - - PENNSYLVANIA

Trade Mark

MORE AND MORE THE ELECTRIC-EYE BECOMES THE AGENT



by which "spot sheeting" is reduced to a simple and accurate operation. The new Amplidyne type of Eye now used, makes for still closer accuracies than before and greater freedom from variation.

BECK Automatic SHEETERS with ELECTRIC-EYE Controlled DIFFERENTIAL & Automatic Lowering Table SHEET PILER

in the latest "streamlined" model the sheeter having the new solid side-frames and more rugged centre braces, are designed to overcome vibration when running at high speeds.

If you have some specially "knotty" sheeting problem, may we help you solve it as we have done for your competitor?

CHARLES BECK MACHINE COMPANY

13th & Callowhill Sts. Philadelphia

ards for packing and wrapping supplies, which include not only a simplified list of sizes, but also recommended standards for basis weight of paper, pulp board and other construction requirements.

Simplified Practice Recommendations have also been adopted for such stock containers as R172-38—Stock Folding Boxes for Garments and Dry Cleaning and R173-38—Stock Folding Boxes for Millinery.

To those engaged in the manufacture and use of packing or packaging supplies Simplified Practice Recommendations should be of interest.

It can be seen from the table that interest in package and container simplification is now far reaching and it is believed the procedure of the Division of Simplified Practice provides an effective service whereby manufacturers of containers and container stock, the users of containers, the packaging machinery manufacturers, the shippers, carriers, consumers and others interested may develop and promulgate simplified lists of sizes, types, designs, dimensions, shapes, capacities, etc., for containers on a *voluntary, cooperative* basis.

Much has been written and said in the last few months about the influence of the present war and the national defense program on packaging trends. At the Eleventh Annual Packaging Conference and Exposition, there was considerable discussion regarding the necessity for simplicity and versatility in the use of packaging materials and the design of packages as a result of the demands and restrictions arising from the national defense program. It was pointed out at the conference that future packaging plans should be made to keep both the package and the packaging operations simple. Shortage of skilled machinists and the rationing of metals and other critical materials make it imperative that all those who are interested in containers and packaging cooperate as never before in eliminating as far as possible the excessive variety in types, designs, sizes, shapes, dimensions, etc. The necessity for action in reducing the demand upon raw materials and in making the best use of existing equipment is obvious. It should be emphasized that a program of simplification can be accomplished without interfering too much with sound package design and without impeding the orderly march of progress in the industry in developing proper types of containers and packaging.

To assist in a program to increase production of defense materials, the Commerce Department, through the National Bureau of Stanards, will join with the Office of Production Management in a campaign to obtain the elimination of unnecessary sizes and varieties of manufactured products. A plan of collaboration has recently been approved.

Officials of the O.P.M. have now made it clear that an extension of simplified practice is necessary in the interests of national defense and in a letter dated June 18 to John Lord O'Brian, general counsel of O.P.M., Acting Attorney General Biddle approved the plan of collaboration referred to above.

Through such a simplification program the defense production of the United States could be stepped up from 25 to $33^1/_3$ per cent, according to Donald M. Nelson, director of purchases of O.P.M. Similar arrangements have been made with the Office of Price Administration and Civilian Supply.

Again let me remind the reader that the constructive work of simplification and standardization started during the last war needs to be carried on now with renewed vigor and energy. Its importance cannot be overestimated. May we help you?

Putting on the Heat

(***Continued from page 48***) product look better. (5) Making for less confusion in shipping and fewer errors in filling orders.

The packers preferred heat-seal bands over any other type not only because they were neat and colorful and had consumer acceptance, but also because they were both water- and grease-resistant, stick only to themselves, are absolutely tasteless, give room for a complete sales story, are easy, quick, inexpensive to apply.

The adaptability of the heat-sealing technique to packaging problems is evident. Not so obvious, but just as true and important, nonetheless, is the adaptability of heat-sealing to modern high-speed packaging methods. In this connection it is well to give due credit to packaging machine manufacturers. They have done fine work in developing simple, not too costly, new machines and new attachments for existing machines to make the application of heat-seals speedy as well as inexpensive.

Credit: Acknowledgment to Dennison Mfg. Co. for supplying information and illustrations used in this article.

Odor-Taste Test of Plastic Closures

(***Continued from page 68***) the employment of the standard difference-preference procedure. This technique is very delicate and involves color, amount, temperature and time control. The results accruing from the odor and taste experiments were treated statistically. At the completion of both the chemical and odor-taste studies, the two sets of results were plotted as shown in Fig. 1. It will be noticed that while the phenol results and those from the odor-taste tests are not perfectly covariant, nevertheless, the trend is unmistakable. A calculated correlation reveals that the two sets of results obtained are related to the extent of 0.64 with a probable error of ± 0.09.

On the basis of these results, it was possible to advance chemical specifications for phenol-formaldehyde plastic closures as regards the odor-taste contamination tendencies of such caps.

What Is YOUR STOP CHANGE GO Marking Problem?

Do containers require labelling or marking to identify size, style, quantity, color, etc., of contents? Do parts for assembly, or for resale, require model, part or serial number for identification or instruction as to operation or use? Do products require these, or any of thousands of other VD's (variable designations)? Or is trademarking, in one or more colors, your problem?

Slow, unusual, difficult, expensive marking operations require printing, stamping, indenting, embossing machines, equipment and supplies *designed for that work.* Dozens of Markem Printers have been developed for that purpose. Equipment and supplies to supplement these machines include work tables, type, type holders, inks, etc.; hundreds of short cuts to do marking *better, faster, at less cost.*

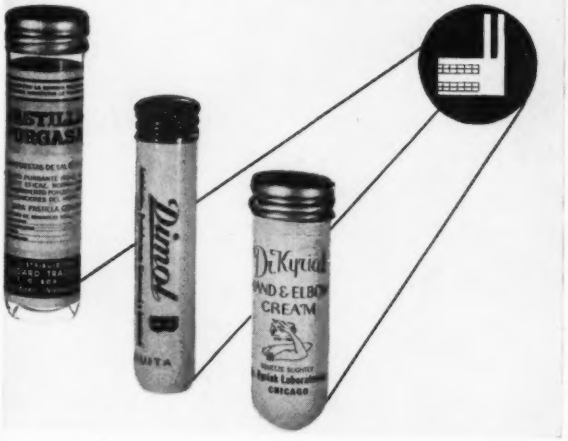
For instance: Paper label inventories are reduced or eliminated. VD information is printed directly on containers, sometimes with contents already packed. Box inventories are reduced. Inventory shortages are avoided. Dependence upon outside sources of supply is lessened. So versatile are some Markem Printers that, by quick change of work table, a label printer also prints plastic parts.

Hundreds of the most prominent concerns in the United States, and elsewhere, have adopted Markem Printers to print, stamp, indent, emboss. These machines are installed right where containers, parts, products come from the production or assembly line . . . right where goods are finished, packed, stocked, shipped. There is where they save time and effort . . . eliminate confusion, delay, lost motions.

What is *your* STOP-CHANGE-GO marking problem? Let us collaborate toward its solution. We have specialized in this work for thirty years. If you care to send samples, they will be returned marked according to description or specification, and with specific recommendations of equipment for duplicating our work in your own plant, shop or office. National Defense inquiries get special attention.

MARKEM MACHINE COMPANY
INDUSTRIAL MARKING HEADQUARTERS
MARKING PRINTING • EMBOSSING STAMPING • INDENTING **MACHINES**
For IDENTIFICATION * APPEARANCE * INSTRUCTION upon
METAL • PLASTIC • GLASS • HARD RUBBER
WOOD • FIBRE • LEATHER • FABRIC
PRODUCTS • PARTS • CONTAINERS
40 Emerald Street KEENE New Hampshire

LUSTEROID



A Steady Source of Supply

In these days of interruptions and dislocations, of material shortages and shipping difficulties, the advantages of Lusteroid packaging are increasingly emphasized. Manufacturers using Lusteroid rigid cellulose vials and tubes are being served without inconvenience.

Lusteroid packages take up less space, too. They are both lightweight and unbreakable, enabling packagers to dispense with bulky (and expensive) wadding and filling. And they eliminate paper labels by providing multicolor labelling integrally during the manufacturing process. Color is integral, too.

LUSTEROID CONTAINER CO. Inc.
Formerly Lusteroid Division of the Sillcocks-Miller Company
10 Parker Avenue, West • South Orange, New Jersey

G.E.C.
THE WAY TO VICTORY
Osram LAMPS LIGHT MANY FACTORIES
WHICH ARE MAKING PLANES, GUNS
AND OTHER MUNITIONS TO HELP TO WIN THE WAR

TOP PHOTO BY THE GENERAL ELECTRIC CO., LTD.

After losing all the windows of their London headquarters, General Electric Co., Ltd., filled the spaces with cutouts. This neat, dignified part boarding of the windows has been adopted by Dolcis, Ltd., for many of their London shoe shops.

(*Continued from page 79*) proportionately, than that enjoyed by a full-scale window. In cases where there are these small windows, most stores have found it wisest to use a minimum amount of wording.

One of the most obvious trends of the outer displays was for the chain stores to adopt a uniform style, thus continuing their usual policy of quick identification. In actual fact, it was many months before any successful application of this idea became evident. With the repair job a matter of urgency, each branch shop was dependent on whatever materials the local builders could obtain. There was hardly time to consult headquarters as to a specific design and very few stores were initially prepared for such an eventuality. Later, many of the stores worked out complete schemes of regular designs which could be used irrespective of the types of materials available. As a result, many of the chain stores achieved a sort of common identification in their displays. Boots the Chemists are one example. The Dolcis shoe chain have used a very simple but dignified type of plain panelling with great effect.

Many of the smaller dealers, however, were not in a position to carry out expensive outer displays. Here there has been an opportunity for certain proprietary manufacturers to combine a useful piece of publicity with a service to dealers. For instance, Murphy Radio, Ltd., undertook to bear the cost of repairing some of their dealers' shops. Of course, the displays they erected were very favourable to Murphy Radio. Optrex, Ltd., were quick to use this new means of publicity. Their advertising department carried out a number of attractive displays for chemists. For these displays, Optrex boarded up most of the window and used a small central panel with two shutters opening outwards like two doors. During the day the shutters were opened and carried an Optrex sales message. At night the shutters were closed but remained a pleasant display for the chemist. Hulton Press, Ltd., the big Picture Post publishing concern, have persuaded numbers of retailers, including chemists, tobacconists, confectionery shops and even drapers' shops in addition to their normal retailers, news agents, to allow them to paint advertisements for their publications on window boardings. In return for this permission, Hulton's also paint a certain amount of appropriate advertising featuring the retailer.

If I have talked at some length about the outer window displays, it is because this aspect of window display has now assumed such an importance. However, the interior display has not lost any of its powers of attraction, provided it is linked up with the variously designed boardings which now replace the glass windows. The trouble has been that many shopkeepers have not seemed to realise the necessity for this. Believe it or not, I have peered in through the new small panel types of windows and still found the interior display to be spread all over the window space with the result that I could not see all the display. With the new type of small windows, it is essential that the inside display be concentrated. Hence, those firms that realise this are using three or four packs intelligently grouped in a small circle spotlighted in the centre of vision of the small window rather than lines and lines of packs, many of which can hardly be seen. Methods of "spotlighting" which I have in mind are streamers of crepe paper, drawing the eye to a central point, or the use of display showcards to concentrate attention on a small area. Actual spotlighting, by lamps or neon-lighting, is seldom used nowadays, especially since we have long hours of daylight and economy is so necessary in lighting.

Outer window display had its big shake-up last September, October and November and now appears to have settled down on the lines I have indicated. Interior window display has been facing its most difficult problems in the past few months for a number of reasons.

UNION ADHESIVES

for an indissoluble bond

WE believe in packages, as well as people, sticking together. It's probably our New England conscience at work. Something we inherited from our forebears who started making quality adhesives nearly 75 years ago. Since that time, we've developed about 700-odd adhesive formulas. And, if you can't find one to suit your purpose in the lot, we'll put one of the finest adhesive research laboratories in the country at your service—without extra charge.

Established 1866

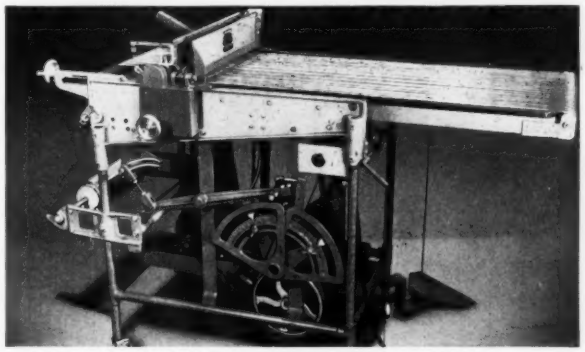
Union Paste Company

1605 HYDE PARK AVENUE • HYDE PARK, MASS.

GLUE AND CUT YOUR CELLOPHANE

Automatically

With the CORLEY-MILLER SPEED WRAP



Here's how you can make BIG SAVINGS in wrapping time, labor and material costs! Taking plain or printed cellophane, acetate or kraft papers from low cost rolls, the "SPEED-WRAP" glues, cuts and delivers the sheets to operators, ready for speedy banding; regulation or corner-to-corner wraps; bundling; transparent window forming and special work. Quickly adjusted for a wide range of package sizes. Write today . . . get *all* the profitable details.

● Wrapping machines; bag making, filling and closing (crimping) machines; sheeting and gluing machines; hot plates; hand irons.

Miller

WRAPPING & SEALING MACHINE CO.

14 SOUTH CLINTON STREET, CHICAGO, ILLINOIS

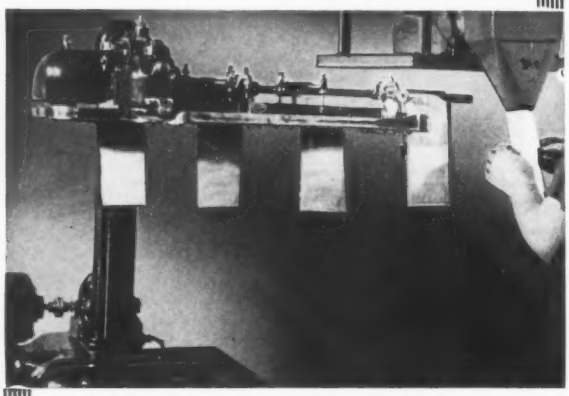
OLSON SHOWMANSHIP

SPECIALISTS IN THE APPLICATION OF SOUND MODERN DESIGN TO EXHIBIT, DISPLAY AND PRODUCT DESIGN PROBLEMS

OLSON DESIGNERS

160 W. WALTON STREET, CHICAGO • MICHIGAN 7676

UP TO
120 BAGS
SEALED A MINUTE!



RAPID ROTARY SEALER

Rapid, automatic bag sealer—rotary type, belt carry for speedier operation. Seals Cellophane, Diaphane, Maralux, and thermoplastic coated bags.

When used in conjunction with filling machine, one operator runs filler and sealer. **Streamlines production and reduces packaging costs.**

Complete information at no obligation. Write now.

AMSCO PACKAGING MACHINERY, INC.
31-31 Forty-Eighth Ave., Long Island City, N. Y.

NEW Charm
FOR YOUR PACKAGE
Lucky charms are sure-fire sales stimulants! 52 dramatic subjects in colorful plastic (also gold and silver plated) ready for attaching to the neck of your package or around its middle with sturdy rubber bands or strings. Also, the charm (on an individual card) can be inserted with the product as a premium.
In any case, each charm adds an individual delight to the package that means more consumer interest—and MORE SALES!
TRY THIS TEST
The cost of these charms is nominal—from $3.00 per thousand. Try a thousand or more in a market test. Put them on or in your package — and watch the sales go up!
SEND FOR FREE SAMPLES
SAMUEL EPPY, INC.
CHARMS—MADE IN U.S.A.
254 West 31st Street • New York City

(1) A great part of the goods which were once supplied are no longer available. (2) Those goods that are available are so only in greatly reduced quantities. (3) Certain products are now rationed (cheese, butter, tea, meat, jam, etc.) and, therefore, the need to advertise and display them no longer exists except for prestige purposes. (4) Various control orders have by now had their full effect since manufacturers have nearly exhausted their stocks and there are practically no supplies of new showcards, window bills, display stands, etc. We are perhaps rapidly approaching the stage where it will be no longer a question of displaying to sell, but of displaying to remind.

It is now probable that the British Government is the biggest user of window display in the country. Led by the Ministry of Information, more and more government departments are turning to display as an important part of their publicity. A particular instance is the Ministry of Food who rely enormously on a series of display pieces and miniature exhibitions which tour the country to educate the public in wartime economy in eating. Simple mobile displays are favoured, accompanied by demonstrators.

In conclusion, I would say that you in America can congratulate yourselves on having the pre-knowledge of our experiences in wartime to help you face up the better to the various problems now arising out of your own part-belligerency.

Safety Kraft

(*Continued from page 100*) treatment is recorded as an accident. It does not become a lost-time accident unless the victim cannot report for his next shift.)

None of the four lost-time accidents was a machinery accident! All four resulted from handling operations (loading, piling, carrying, etc.). The 1940 accident record showed 13 "handling" accidents, including the four lost-time cases; one charged to illness, eight charged to machinery, two charged to tools; one, to floors.

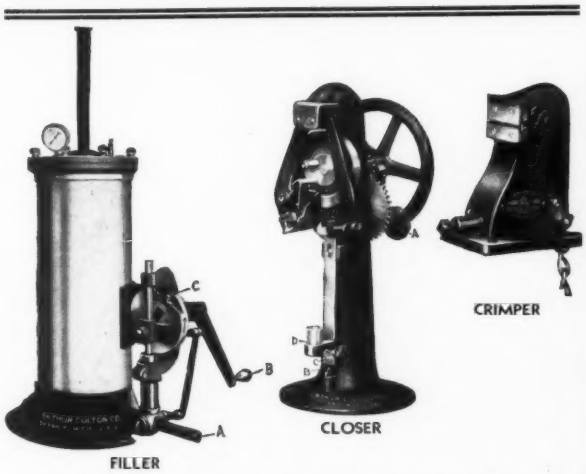
What are Kraft's principal accident problems?

"No. 1," said Mr. Moberg, "is over-enthusiasm among the machinery operators.

"It isn't a matter of deliberate disobedience to rules. It is more a matter of enthusiastic, impulsive unwillingness to stop production. It should be explained, too, that we do not operate on a piece-work basis.

"Our No. 2 problem involves the diametric opposite of over-enthusiasm—day dreaming. In spite of the best control of light, noise, ventilation and other fatigue factors which we can apply, repetitive machine operations, by their very nature, become monotonous at times and an operator's mind will wander."

The reason that the accident problem in Kraft's Chicago plant boils down to two such relatively unimportant causes as over-enthusiasm and day dreaming is obvious. The plant is practically fool-proof.



COLTON Hand Operated Machines

Will seal tubes with Colton Clipless Closure or for applying clips

Will be pleased to recommend machines suited for your requirements

write

ARTHUR COLTON CO.

2602 EAST JEFFERSON AVE., DETROIT, MICH.

CLASSIFIED

➡ MR. MANUFACTURER. Have you new products to promote; new markets to reach; old products seeking new uses, broader markets? Can your packaging, sales strategy, merchandising, manpower management, profits stand improvement? Sales executive seasoned these problems, skilled merchandiser national volume markets seeks contact sound, aggressive manufacturer ready to forge ahead. Reply Box 142, Modern Packaging.

➡ SALES REPRESENTATIVE: experienced man wanted by packaging machinery manufacturer, to handle their line exclusively in Ohio and surrounding territory. Write, stating age, experience, qualifications to Box 143, Modern Packaging.

➡ MACHINE DESIGNER WANTED: experienced, well-seasoned engineer, thoroughly familiar with the designing of automatic packaging machinery. Write fully, giving age, experience, etc., to Box 144, Modern Packaging.

➡ WANTED—CONFECTIONERY PACKAGING SALES SPECIALIST: Mature man now responsible for sales promotion of packaging and display materials to leading manufacturing confectioners. This man to work out of General Office of national, progressive supply firm, reporting directly to general sales manager. Must be able and willing to assume full burden of company's already substantial relationships with the industry, and be well acquainted with current personnel and problems in order to develop these relationships further. Salary commensurate with qualifications. Give full details in strict confidence. Our staff knows of this advertisement. Reply Box 145, Modern Packaging.

35 Bottles per Second;
.....1,000,000
Every 8 Hours!

4 Miles of

LAMSON
CONVEYORS

keep costs down in the World's Largest Bottling Plant!

Thirty-five bottles a second. One million bottles every 8-hour day. That's the amazing production that flows steadily off 4 miles of Lamson Conveyors in the East River Pepsi-Cola plant—largest bottling plant in the world.

They're extra-large-size bottles, too—advertised as "America's greatest nickel's worth." To fill them and distribute them and net a profit at the 5c price requires strict economy all along the line. Bottles must move in a continuous flow . . . from soakers to bottlers to labelers and out to the trucks again. There can be no failures anywhere. No stoppages.

That's why Pepsi-Cola picked Lamson Conveyors for the job.

Get better acquainted with Lamson's wide experience and equipment. Find out what it will do for you. Send today for a free copy of our new Package Conveyor folder.

LAMSON CORPORATION
709 Lamson St., Syracuse, N. Y.

Immersion in Water
or Oven Heat
or Freezing
Temperatures
do not affect
No. 69
Waterproof Liquid Glue

Ask for free sample of No. 69

It holds spot labels to tin, plain or lacquered . . . also to other metals, painted, varnished or uncoated. Resists sweating of containers . . . or sterilizing of cans by steam. Applied cold, no treatment of surface required . . . just brush it on . . . it will set quickly, even in refrigerator.

WILLIAMSON ADHESIVES, Inc.
2323 West 18th Street, CHICAGO
We do not believe there is any substitute for quality

A Sanitized HOTEL
for the TRAVELER'S PROTECTION
1. Bathrooms are antiseptically treated throughout. 2. Glassware is sterilized and wrapped in cellophane. 3. Telephones are Sanitized. 4. All bed linens and towels are Sanitized-laundered. 5. Extra blankets are Sanitized and specially wrapped for your use.
HOTEL EMPIRE
BROADWAY AT 63rd STREET • NEW YORK
The Elevated line, which formerly passed the door of the Empire, is now a thing of the past. Today, the hotel's fine park location at Lincoln Square is one of the quietest in all New York. On your next visit to the city, take advantage of the Empire's economy rate schedule.
Edw. B. Bell, Manager
RATES FROM $2 SINGLE
$3 FOR TWO

Selling by Contrast

(*Continued from page 40*) A cure-all which would now be prohibited by law is the "Pinola" bottle. The label on this container states that the contents are "a positive cure for coughs, colds, asthma, bronchitis and all affections of the lungs, throat and chest."

We find an early use of the paper container to hold liquids in a pail sold to grocers and fish dealers by Charles S. Case of Binghamton, N. Y., "warranted to hold hot and cold liquids." The patented name "Silver Band" is derived from a metal strip running down opposite sides of the pail and across the bottom into which is fastened the metal carrying handle. This container was patented in 1880.

A useful and re-useful metal container was marketed by the Ritter Co. to hold their preserves. Taking the form of a truncated pyramid, this package has an interesting and functional shape with a wide non-tipping base and a carrying handle that is an integral part. Joints are soldered to prevent leakage. The package was fashioned out of sheets of galvanized iron or tinplate bent at the corners.

Early use of pottery for containing mustard and ink showed effective package planning. The mustard jar is in bright blue with a simple contrasting label. This paper label obviously can be easily removed and gives the jar re-use value for kitchen or boudoir, appealing to the thrifty housewife of yesteryear. A secondary closure of paper and foil is used to seal the pottery primary closure to the body of the jar and to carry the trade name of the product. An inner paper liner is used to prevent spillage and evaporation. The ink container is attractively finished in a neutral gray. A pouring spout is integral with the neck of the container.

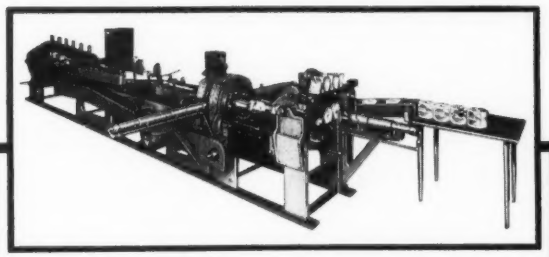
Matches were more or less of a rarity not so many years ago. They were sold in small paper containers with telescoping covers. These small packages were packed nine to a carton bearing the maker's name.

A bottle which would pass muster on any modern epicure's table is the one used for tomato catsup by A. Luedemann of New York. It is an exceedingly graceful container with a lithographed label.

The can for Nestle's food which is described as "a perfect nutriment for infants, children and invalids, the basis of which is the best cow's milk" gives rather complete directions for use. Amounts to be used are allocated according to the age of the child. And then in columns following this are given the proper amount of water, the quantity for one feeding, intervals between feedings and the number of feedings per night.

There is almost no end to the surprises unearthed by studying these interesting old packages. They prove more strongly than ever before that there is really nothing new under the sun, particularly not in packaging. We may have refinements and reapplications, but the principles of good packaging are older than our grandmothers. Good packages of a half century ago are still selling today to granddaughter.

WRAPPING MACHINE



NEW HIGH-SPEED MACHINE FOR WRAPPING EITHER SQUARE OR IRREGULAR SHAPED PACKAGES

Fully automatic, this rotary-type wrapping machine is capable of the highest possible speed production.

No cams, no reciprocating movements.

Wrappers are fed from continuous roll.

Send us your wrapping problems.

HUDSON-SHARP
MACHINE CO • GREEN BAY • WIS

WELLS Sealers

1. Can be Attached to Packaging Machine
2. For Fast, Reliable Sealing

1. For Pliofilm and similar materials
2. For Cellophane, Diafane and similar materials

For good-looking, reliable sealing of Pliofilm and other similar materials, you can have speed and perfect work at a saving of labor by using the Wells Roller-Thermosealer.

For Cellophane, Diafane and similar cellulose materials, use the Wells Thermosealer.

Hundreds of progressive industrialists use Wells Sealers because they are easy to use and assure seals that hold.

Both Wells Sealers have thermostats for accurately controlling the proper sealing temperature of various materials. Cast from high-grade aluminum alloy and well-made for long, safe use. Highly efficient. Light in weight. Low in cost.

Write today for complete details and prices.

WELLS MFG. CO.

220 Ninth Street, San Francisco, Cal.
1133 Broadway, New York, N. Y.

YOU'LL LIKE THE BISMARCK

It's not an overcrowded convention hotel . . . it's not a salesman's showroom . . it's just a congenial, convenient place to stay in Chicago and meet your friends undisturbed. You'll like the good food in the Walnut Room and the five other air-cooled dining rooms.

You'll like the pleasant rooms with every convenience for your comfort.

Then, too, the Bismarck is so handy to everything in the loop.

•

Write for free illustrated folder listing coming games, shows, concerts, special events.

OTTO K. EITEL, MNG. DIR.

BISMARCK HOTEL CHICAGO
RANDOLPH AT LA SALLE

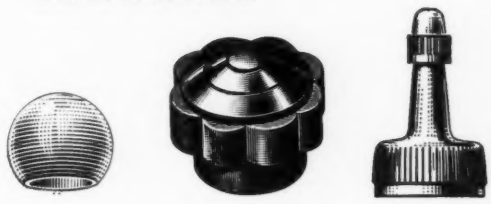
Jimmy Joy in the WALNUT ROOM

Special rooms for sales conferences, meetings and banquets.

We invite correspondence from business officials.

Let us show you how we can help you.

SPECIALISTS
in the manufacture of
CAN & BOTTLE CLOSURES



LET us quote you on your requirements. Hundreds of dies and molds available for Essential Oil Cans, Sprinkler Tops, Screw Caps, Aluminum Capped Corks, Lead and Tin Coated Spouts, Metal Specialties. 80 years' experience in meeting the needs of packagers. Call upon us for aid.

CONSOLIDATED FRUIT JAR COMPANY
NEW BRUNSWICK • NEW JERSEY

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MODERN PACKAGING

BRESKIN PUBLISHING CORPORATION—Chanin Building—122 E. 42nd St., New York, N. Y.

HUMITUBE

REG. U.S. PAT. OFF.

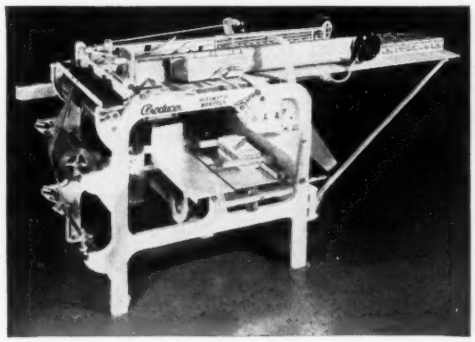
HUMITUBE MFG. CO.
PEORIA, ILLINOIS

A pioneer converter of Flat, Square and Satchel Bottom bags, plain and printed.

Envelopes, pouches, cigar tubes and transparent drinking straws made of—

Cellophane
TRADE MARK
THE DUPONT CELLULOSE FILM

A LOW-COST SOLUTION
to many packaging problems



The VARIETY automatic wrapper

● Successfully wraps a wide variety of products ● Easily operated by an average boy or girl ● Folds and seals neatly and securely with cellophane or wax papers.

We shall be glad to wrap samples of your products for your inspection.

CAPACITY
1000 per hour

ONLY $995
F. O. B. Rock Island

GELLMAN MANUFACTURING CO.
Specializing in Wrapping Equipment—11th YEAR

EASTERN OFFICE AND DISPLAY
1270—6th Ave., New York City

HOME OFFICE AND FACTORY
Rock Island, Ill.

★ HOTEL CHELSEA

AS FRIENDLY AS YOUR HOME

OFFERS DIVERSION FOR EVERY MEMBER OF THE FAMILY

Concerts and dinner music by artists of Philadelphia Orchestra. Luncheon served guests in bathing attire on our open air dining terrace. Restricted beach. Bathing from rooms. Dancing, Bar, Sundecks. Social Director. Kindergartener. Noted cuisine.

VISIT OUR NEW BAR AND TERRACE

RATES FROM
$7 ROOM, BATH, MEALS
$4 ROOM & BATH ONLY
Per Person—2 in a Room

• RIGHT ON THE BOARDWALK •

ATLANTIC CITY

JOEL HILLMAN • J. CHRISTIAN MYERS • JULIAN A. HILLMAN

COLOR IN DESIGN..

assumes an ever increasing importance in today's merchandising picture. We have facts and figures which you will find helpful and profitable. Send for them.

EAGLE PRINTING INK CO.
Division · General Printing Ink Corporation
100 SIXTH AVENUE, NEW YORK, N. Y.
Philadelphia Chicago Cincinnati Cambridge
Baltimore Jersey City

Electrical Trousseau Glamourized with...VUEPAK!

What?...Sell an iron for a wedding gift?...Display a toaster or a waffle iron in the same type of glistening, transparent packages they use to sell fine perfumes and cosmetics?

Yes, that's exactly what Landers, Frary and Clark are doing with their Universal electric household appliances—with outstanding success!

In an ingenious bid for the $500,000,000 market represented by America's annual 1,300,000 weddings, they are offering three selected appliances in a special gift chest as Universal's Electric Trousseau . . . and Universal dealers are displaying the separate units in sleek, smart, individual showcases of Vuepak!*

That Vuepak should be found playing a star roll in this unique promotion is perhaps the one fact about Universal's Electric Trousseau that isn't surprising. Perfectly transparent, yet sturdy and rigid, Vuepak has added new glamour to many an otherwise taken-for-granted product —new showmanship to many a successful promotion.

For full details and the names of competent fabricators, inquire: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield, Mass. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal.

**Fabricated by National Transparent Box Co., Springfield, Massachusetts.*

MONSANTO PLASTICS
Serving Industry . . Which Serves Mankind

"LET'S GO! U.S.A." "KEEP 'EM FLYING!"

Closures that open doors!

IT ALL BEGAN with a little tooth paste tube cap which was tested for months before being adopted by one of America's best known pharmaceutical houses. Those first Durez caps set a new standard for closures that has never been equaled. Consumers like them . . . like them because they screw on and off so easily without stripping their threads; because they're so colorful and attractive; because they provide a leak-proof seal; because they don't corrode.

Today, it is a well established fact that Durez closures open the doors to increasing sales. For more than ten years now, Durez has had a hand in re-shaping the sales appeal of countless packages. In step with custom molders' and industrial designers' ingenuity . . . bottle caps followed tube caps; then came combination plastic-and-cork closures and finally all-molded applicator closures. From the smartest of cosmetics and drugs to the familiar, traditional liquor houses . . . the list of Durez users is long and impressive. Hardly a month passes without bringing some fresh honor to Durez. Witness the new Duraglas bottles, product of Owens-Illinois Glass Company . . . their caps of molded Durez!

Have you discussed the sales potentialities of Durez closures with your designers and engineers? If you have a problem that you think our wide experience could help you solve . . . we would be glad to hear from you.

Durez Plastics & Chemicals, Inc.
209 Walck Road North Tonawanda, N. Y.

DUREZ PLASTICS & CHEMICALS, INC.
PLASTICS THAT FIT THE JOB

6 COLORS . . . OR 3

DO YOU KNOW? Should your package be printed in four or five colors . . . or are two enough? There is no simple formula. The individual product, its marketing conditions, the packages with which it must compete for attention . . . all these things are important. Only experienced originators of package designs . . . such as you will find at SHELLMAR . . . can interpret these factors intelligently, and give your product the colors and design it needs.

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